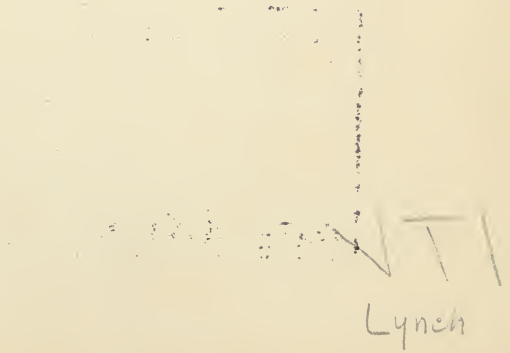
NYPL RESEARCH LIBRARIES
3 3433 07736250 1

# "Win the War" Cook Book

1. Cooking, American

MICROFILMED

DATE 9/15/93


Lynch

Digitized by the Internet Archive
in 2007 with funding from
Microsoft Corporation

http://www.archive.org/details/winwarcookbook00lync

THE NEW YORK
PUBLIC LIBRARY

ASTOR, LENOX AND
TILDEN FOUNDATIONS
R . L

I am very happy indeed, to endorse the "Win the War" Cook Book now being compiled by the St. Louis County Woman's Committee.

In addition to being a very great boon to the homemakers of this generation, this book will be of great interest and value from a historical viewpoint and as a souvenir of this period.

Yours cordially,

Mrs. B. F. Bush.

Chairman Woman's Committee
Council of National Defense
Missouri Division

# "WIN THE WAR"
# COOK BOOK

Published by
ST. LOUIS COUNTY UNIT
Woman's Committee
COUNCIL OF NATIONAL DEFENSE
Missouri Division

Sold for War Work or War Relief Only

PRICE FIFTY CENTS

Compiled by
REAH JEANNETTE LYNCH, B. S.

1918

B.A

THE NEW YORK
PUBLIC LIBRARY
798753 A
ASTOR, LENOX AND
TILDEN FOUNDATIONS
R 1935 L

*To*
*The Mothers*
*of our Soldier and Sailor*
*Boys*

GO *back* to the *simple* life, be contented with *simple* food, *simple* pleasures, *simple* clothes. Work hard, pray hard, play hard. Work, eat, recreate and sleep. Do it all courageously.

*We have a victory to win.*

—HOOVER

SAVE WHEAT
SAVE MEAT
DON'T OVER EAT
DON'T WASTE
GREATER CONSERVATION
OF
FOODSTUFFS WILL
HELP WIN THE WAR
AMERICAN HOUSE WIFE
COURTESY
HARTMAN
ST. LOUIS TIMES

# Preface

The only principles of public conduct worthy a man or gentleman are to sacrifice ease, estate, health, applause and even life to the sacred call of country.

JAMES OTIS, 1761.

We here highly resolve that the dead shall not have died in vain—that this nation under God shall have a new birth—freedom—and that government of the people, by the people and for the people shall not perish from the earth.

ABRAHAM LINCOLN, 1863.

We dedicate our lives and our fortunes, everything that we are, and everything that we have.

WOODROW WILSON, 1917.

The great light of liberty, justice and equality that burst upon the world in 1776 is today threatened to be put out with a hand of blood and iron.

Women of America, awake! We have a definite part to play in this, the greatest tragedy in the world's history. We need not form ourselves into BATTALIONS of death, but into BATTALIONS of life. Save food and we save life!

We are unwilling to believe that the women of America are slackers, in other words, traitors to our beloved country and its beautiful emblem, within whose folds are wrapped all that makes existence worth while. A woman, if there be such, who says, "I will not use corn in place of wheat," who says, "I will not save a teaspoonful of sugar each day," who says, "I will eat beef, mutton and pork daily," is as truly a traitor to her country as was Benedict Arnold or Aaron Burr.

The object of this War Cook Book is to place within one cover all that which has been printed in manifold forms of the best thought of those capable of telling us how to use intelligently the substitutes which our Government has asked us to use.

Ours is the splendid burden of feeding the world. It can be done in but one way: The way of voluntary and larger resolution and action of the whole people in every shop and every kitchen and at every table in the land.

The Woman's Committee Council of National Defense have published this book with no other idea or purpose than to help our fellow-women do the little part which old Uncle Sam has asked us to do.

So let us substitute food value for food value.

We send our book forth with a prayer that it may play its little part in bringing liberty, justice and peace not only to our own country, but to the world.

## ACKNOWLEDGMENTS

We have been greatly assisted in the compilation of this book by the National and State Food Administration, to whom we extend our cordial thanks.

We are particularly indebted to the Domestic Science Instructors of the State University and of the Preparatory Schools of the city of St. Louis and St. Louis County, for their advice and generous help.

For encouragement and material assistance, we are especially grateful to Mr. T. B. Boyd and Mr. J. Hal Lynch.

Woman's Committee Council National Defense,
St. Louis County Unit.

## ENDORSEMENTS

The United States Food Administration, in returning our manuscript, writes:—

We thank you for submitting the matter to us and regret the delay in its return to you. May we take this opportunity also of expressing our deep appreciation of your obviously sincere and effective effort to aid the vital work of Food Conservation.

It is becoming increasingly evident day by day that food will win the war, and it is largely through the work of women like yourself and your associates that food will be effectively used to sustain the health and efficiency of our allies and our own people.

U. S. Food Administration,
States Division Department.

Dr. Anna Howard Shaw, Chairman Woman's Committee Council National Defense, says in her letter from Washington:—

I think your plan a good one. It should be carried out without

delay because more and more we are going to be restricted as to the quality and kinds of food we can use. The sooner we obtain definite information with good recipes, the better it will be for us all.

Mrs. George Gellhorn, Chairman Woman's Central Committee on Food Conservation and State Chairman Woman's Committee, says:—

It is with the greatest interest that I have heard of your plan for a conservation cook book. The ability with which your Committee is handling this matter justifies me in the belief that the work will be a real contribution to food conservation in this state and trust throughout the country. I congratulate you and assure you every sort of co-operation in my power as State and City Chairman of Foods and give you my hearty endorsement and congratulations.

The Food Administration of St. Louis, in writing says:—

The Food Administration of St. Louis heartily endorse your "Win the War" Cook Book. This should be a very valuable medium for informing the housewife how she can demonstrate her patriotism in her home.

F. B. Mumford, Federal Food Administrator for Missouri, writes to the Chairman of the Committee:—

This war will not be won by the last 500,000 fighting men but by the last 500,000 bushels of wheat. We are under the impelling necessity of conserving wheat, meat, fat and sugar.

Any educational movement which will result in saving any of these vital war food products has the full endorsement of the United States Food Administration. Enclosed I am sending you some recipes which are authorized by the United States Food Administration.

Mrs. Geo. A. Still, President of the Missouri Federation of Woman's Clubs, says:—

It gives me great pleasure to add my name to the distinguished number of men and women who have endorsed the "Win the War" Cook Book. I hope the book may have the sale it deserves.

## ST. LOUIS COUNTY UNIT

### Woman's Committee Council of National Defense

Mrs. J. Hal Lynch, Chairman_____Clayton, Mo.
Mrs. W. T. Donovan, Vice-Chairman_____Normandy, Mo.
Mrs. William H. Davies, Secretary_____Clayton, Mo.
Mrs. R. E. Eggebrecht, Chairman of Finance____Webster Groves
Mrs. Emil Laun, Chairman Courses Instruction_____Clayton, Mo.
Mrs. Walter M. Langtry, Chairman Red Cross_____Clayton, Mo.
Mrs. L. W. Lacy, Chairman Speakers_____Webster Groves
Miss Marion Griffin, Chairman of Child Welfare and Maintenance of Existing Social Agencies__St. Louis County

### Town Chairmen (Executive Council)

Mrs. Robt. H. McMath_____ Webster Groves
Mrs. P. O. Bruno_____Wellston
Mrs. Warren McGinnis _____ Wellston
Mrs. W. H. Allen_____ University City
Mrs. E. S. Sieber____Kirkwood
Mrs. F. P. Knabb__Valley Park
Mrs. Marie Reine F. Penaloza_ Ferguson
Mrs. H. Von Schrink_____ Florissant
Mrs. Chas. C. Craft_____ Florissant
Mrs. Thomas F. Shields_____ Eureka
Mrs. Wm. D. Buchannan_____ Pine Lawn
Mrs. B. F. Tate_____ Hancock S. Dist.
Mrs. Geo. Eades _____Midland
Mrs. A. E. Wiedmer_____ Maplewood
Mrs. Wm. Davidson _____ Normandy
Mrs. B. J. Buss_____Jennings
Mrs. R. J. Winters_____ Richmond Heights
Mrs. H. Woerther _____ Baldwin and Manchester
Mrs. John Phelan ____Allenton
Mrs. W. W. Henderson_____ Bridgeton
Mrs. D. E. Horton__Bridgeton
Miss Ruth Nolte___Black Jack
Mrs. Lewis S. Doyle_____ Creve Coeur
Mrs. H. C. Harwood_____ Des Peres
Mrs. H. G. Koerber_____ Hampton Park
Mrs. Paul D. Walsh__Overland
Miss Ida Post_____Pattonville
Miss Cora Schall _____ Rock Hill S. Dist.
Mrs. A. Blanner___Shrewsbury
Mrs. F. J. Gould___Vinita Park
Mrs. T. L. Fitzwilliams_____ Lincoln S. Dist.
Miss Elsa Bruenjes___Glendale

## MEASUREMENTS

Level measurements make exact recipes possible because the quantity measured is uniform, the same table may be used for solids and liquids, and measures can be easily divided.

A spoonful is a spoon level full. Use a straight-edged knife or the spatula to obtain a level surface. Half a spoonful is a spoonful divided lengthwise. One-fourth of a spoonful is a half spoonful divided crosswise, the division line a little nearer the handle end of the bowl.

A cupful is a cup level full. Fill the cup and level the top with a spatula knife.

Do not shake or press down dry material, as flour or sugar. Measure flour after sifting once. To measue a fat, as butter, by the cupful, pack solidly and level. To measure less than one-half cupful, use a tablespoon. Pack solidly into the spoon and level.

A speck is that which may be held on the tip of a vegetable knife.

## TABLE OF EQUIVALENTS

| | | | |
|---|---|---|---|
| 3 | tsp. | 1 | tbsp. |
| 16 | tbsp. | 1 | c. |
| 2 | c. | 1 | pt. |
| 2 | pts. | 1 | qt. |
| 4 | qts. | 1 | gal. |
| 2 | gal. | 1 | pk. |
| 2 | c. sugar | 1 | lb. |
| 4 | c. flour | 1 | lb. |
| 2 | c. solid fat | 1 | lb. |
| 1 | pt. liquid | 1 | lb. |
| 1 | tbsp. liquid | ½ | oz. |
| 1 | tbsp. butter | ½ | oz. |
| 1 | rounded tbsp. of flour | ½ | oz. |
| 3 | c. corn meal | 1 | lb. |
| 1½ | pt. corn meal | 1 | lb. |
| 1 | solid pt. chopped meat | 1 | lb. |
| 1 | rounded tbsp. flour | ½ | oz. |
| *10 | eggs | 1 | lb. |
| 1 | pt. gran. sugar | 1 | lb. |
| 1 | pt. brown sugar | 13 | oz. |
| 2½ | c. powdered sugar | 1 | lb. |
| Butter size of an egg | | 2 | oz. |
| Butter size of ½ egg | | 1 | oz. |

One medium-sized lemon contains from four to four and one-half tablespoons of juice.

One medium-sized orange contains from five to eight tablespoons of juice.

One egg contains about three tablespoons unbeaten yolk and white.

When using oil to replace butter or lard use one-third less.

When using syrup to replace sugar subtract the liquid in the syrup from the liquid in the recipe.

*Approximately.

## ABBREVIATIONS

| | |
|---|---|
| c. | cupful |
| tbsp. | tablespoonful |
| tsp. | teaspoonful |
| spk. | speck |
| lb. | pound |
| qt. | quart |
| pt. | pint |
| gal. | gallon |
| pk. | peck |

## "A LESSON IN BUYING"

Yet another method of studying food value is to be found in a consideration of weight, cost and measure. Such a common commodity as potatoes, of course, are always purchased by weight, but it is very important to realize that there are 15 pounds of potatoes in a peck and that these 15 pounds also represent about 50 medium-sized potatoes. In other words, if the housekeeper buys a pound of potatoes she will get three medium-sized potatoes, and a little one thrown in for full weight. A pound of prunes may be ordered without any special interest by the woman buyer, and she may get either large or small prunes, depending upon the grocer's wishes, while a wise buyer would stipulate the size wanted because she would know that in a pound of small prunes she would get about 40 prunes, while if they were large there would be about 28.

The following table shows the relation of weight and measure and also brings about the difference in the weight of contents of the cans of different sizes. In the case of canned pork and beans, the No. 1 can, cost 15 cents, weighs 11 ounces, while the No. 2

can, cost 20 cents, weighs 21 ounces. In the latter can, the cost of the additional 10 ounces is 5 cents. If the housekeeper used condensed milk in quantity it is better for her to buy the 16 ounce can, as the cost per ounce is much less than if she purchases the 6 ounce can. Of course, it may be better economy for the woman to buy the No. 2 can of vegetables, but this is true only when the No. 2 can gives her exactly enough for one meal for her family. If there is a serving left over, it is evidently wiser for her to buy the No. 3 can, because then she has enough for two meals and with different methods of preparation, will run no risk of monotony.

It seems clear, then, that several elements enter into intelligent buying of food. One who enlists in that service ought to have a clear conception of the relation of these units of weights, cost and measures.

## TABLE OF WEIGHTS AND MEASURES

| Material. | Weight. | Measure. |
|---|---|---|
| Apricots | 1 lb. | 75 pieces |
| Bananas | 1 lb. | 3 large |
| Beans, Navy | 1 lb. | 2⅓ cups |
| Beans, canned: | | |
| String, No. 2 | 1 lb. 2 oz. | 1⅔ cups, drained |
| Lima, No. 2 | 1 lb. 4 oz. | 1⅔ cups, drained |
| Bread: | | |
| Graham | 12 oz. | 14½ in. slices |
| Rye, Ward's | 1 lb. | 21½ in. slices |
| White, Ward's | 1 lb. 2 oz. | 16½ in. slices |
| Whole wheat, Ward's | 1 lb. 4 oz. | 15½ in. slices |
| Butter | 1 lb. | 48 squares |
| Milk, condensed | 6 oz. | ⅔ cup |
| " " | 16 oz. | 1 7/9 cups |
| Molasses, No. 2½ | 2 lbs. 6 ozs. | 2¾ cups |
| Pineapple: | | |
| No. 1 flat | 9 oz. | 5 slices |
| No. 2 tall | 1 lb. 3 oz. | 10 slices |
| Prunes: | | |
| Small | 1 lb. | 40 prunes |
| Large | 1 lb. | 28-30 prunes |
| Tapioca: | | |
| Instant | 10 oz. | 1 3/7 cups |
| Minute | 10 oz. | 1 3/7 cups |
| Pearl | 1 lb. | 2 1/7 cups |

1 ounce of sugar measures 2 level tablespoons.
⅓ ounce of butter measures 2 level tablespoons.
2 ounces of flour measures ½ cup.

U. S. Food Administration.

## MEAL PLANS

Study your meals. Plan them for at least three days in advance. This helps you to buy to better advantage, gives variety in material and preparation.

Ask yourself the following questions about your meal:

Does this plan mean—

1. The use of home-grown products and thus allow the railroads to be hauling supplies for the army instead of food for my family?

2. The exchange of milk, cheese, eggs, fish, game and partial exchange of beans, nuts and peas for beef, mutton, pork? Beans, nuts and peas are not meat substitutes, but meat savers. Soy bean is an exception.

3. The use of barley, buckwheat, corn, oats, potatoes and rye instead of wheat?

4. Plenty of whole milk for the children and, if possible, for adults?

5. Twelve ounces of fat per adult per week and six ounces per child per week?

6. The substitution of honey, molasses, corn syrup or other syrup for sugar, so as to reduce the amount of sugar used to three pounds or less per person per month?

7. Meals adapted to the season and pocketbook?

U. S. Food Administration.

## FOLLOW THESE DIRECTIONS

The Food Administration asks everyone to maintain rigidly a minimum of at least:

ONE WHEATLESS day each week and one WHEATLESS MEAL each day; the wheatless day to be Wednesday. By wheatless we mean eat no wheat products.

ONE MEATLESS day each week which shall be Tuesday, and one MEATLESS MEAL each day. By meatless we mean to eat no red meat—beef, pork, mutton, veal, lamb; no preserved meat—beef, bacon, ham, or lard.

SUGAR—You can materially reduce sugar by reducing the use of candy and sweet drinks. We will make every endeavor to see that the country is provided with a supply of household sugar on the basis of three pounds of sugar for each person per month. Do not consume more.

U. S. Food Administration.

## CALENDAR OF PATRIOTIC SERVICE

SUNDAY—One wheatless meal, one meatless meal.

MONDAY—Wheatless day, one meatless meal.

TUESDAY—Meatless day, porkless day, one wheatless meal.

WEDNESDAY—Wheatless day, one meatless meal.

THURSDAY—One meatless meal, one wheatless meal.

FRIDAY—One meatless meal, one wheatless meal.

SATURDAY—Porkless day, one wheatless meal, one meatless meal.

EVERY DAY—Save wheat, meat, fats, sugar to create provision for our armies and the allies.

Temporarily to save wheat, Food Administration asks you to observe beefless and porkless Tuesday, but not meatless meals and porkless Saturday.

## STUDY THESE FIVE FOOD GROUPS

(Sources.)

1. Carbohydrates:
   Commercial and metabolised products.
   Sugars:
   Glucose, Dextrose—Grapes, sweet corn, onions.
   Fructose, Fruit sugar—Fruits, honey, hydrolysis of sucrose.
   Sucrose, Cane sugar—Fruits, sugar beet, sugar cane, sorghum canes, palm sugar, sugar maple, pineapples, carrots.
   Lactose, Milk sugar—Milk of all mammals.
   Maltose, Malt sugar—By diastatic action on germinating seeds, malt and malt products.
   Starches:
   Starch—Grains, roots, tubers, bulbs, stems, leaves.
   Dextrin—Brown flour—By heating flour.

2. Proteins:

| | |
|---|---|
| Meats. | Milk. |
| Fish. | Cheese. |
| Poultry. | Beans. |
| Game. | Peas. |
| Rabbits. | Cereals. |
| Eggs. | Nuts. |

3. Fats:

| | |
|---|---|
| Commercial products. | Vegetable fats: |
| Animal fats: | Troco. |
| Butter. | Crisco. |
| Lard. | Vegetable oil: |
| Part animal fat: | Cottonseed oil. |

| | |
|---|---|
| Oleomargarine. | Corn oil. |
| Cottolene. | Olive oil. |
| Snow Drift. | Peanut oil. |

4. Mineral (chiefly in vegetables, fruits, milk, eggs):
Salts:

| | | | |
|---|---|---|---|
| Calcium. | Iron. | Sodium. | Sulphur. |
| Phosphorous. | Potassium. | Chlorine. | Magnesium. |

5. Water.
6. Vitamines: Fat soluble. Water soluble.

## COMPOSITION OF CEREALS.

| | Protein. | Fats. | Carbo. | Ash. | Water. |
|---|---|---|---|---|---|
| Barley: | | | | | |
| Pealed barley | 8.5 | 1.1 | 77.8 | 1.3 | 11.3 |
| Barley, entire grain | 10.5 | 2.2 | 72.8 | 2.6 | 11.9 |
| Patent barley flour | 8.0 | 1.7 | 79.35 | 0.65 | 10.3 |
| Buckwheat: | | | | | |
| Entire grain | 10.7 | 2.0 | 62.8 | 1.8 | 12.3 |
| Flour | 8.7 | 1.6 | 76.2 | 1.0 | 11.9 |
| Maize (Indian Corn): | | | | | |
| Whole | 10.0 | 4.3 | 71.8 | 1.5 | 10.7 |
| Corn meal (old process) | 9.0 | 4.3 | 72.5 | 1.3 | 11.6 |
| Corn meal (new process) | 7.8 | 1.3 | 78.5 | 0.6 | 12.0 |
| Hominy | 8.3 | 0.6 | 79.0 | | 11.8 |
| Oats: | | | | | |
| Oatmeal | 16.1 | 7.2 | 67.5 | 1.9 | 7.3 |
| Rolled oats | 16.7 | 7.3 | 66.2 | 2.1 | 7.7 |
| Rice: | | | | | |
| Cured rice | 8.02 | 1.96 | 76.05 | 1.15 | 11.88 |
| Polished rice | 7.18 | 0.26 | 79.36 | 0.46 | 12.34 |
| Rye: | | | | | |
| Flour | 6.8 | 0.9 | 78.7 | 0.7 | 12.9 |
| Meal | 13.6 | 2.0 | 71.5 | 1.5 | 11.4 |
| Wheat: | | | | | |
| Whole wheat flour | 12.26 | 2.24 | 73.67 | 1.02 | 10.81 |
| Graham flour | 13.3 | 2.2 | 71.4 | 1.8 | 11.31 |
| Shorts | 12.65 | 2.44 | 74.58 | 1.72 | 8.61 |
| Bran | 14.02 | 4.39 | 65.54 | 6.06 | 9.99 |

Sherman.

Note: Use whole wheat flour instead of white flour because it has more food value, and helps in the conservation value of the whole grain.

Use graham flour with white flour to restore food value to white flour.

However, the use of whole wheat and graham flours is not regarded as saving wheat.

Note: The changes which take place in the foodstuffs after they have been absorbed from the digestive tract are included under the general term "metabolism."

# Wheat Substitutes

Housekeepers are asking why they are requested to substitute corn for wheat flour. Because of the countries allied with us only Italy raises corn and is accustomed to its use. War time is not a good time to try to introduce a new product. Besides, there is practically no corn-milling machinery in Europe except in Italy, and corn meal can not be shipped in large quantities owing to the fact that it spoils readily. The whole problem can be met if our loyal housewives will substitute one pound of corn or other cereal flour per week per person. We all like corn; a very trifling change in our diet will release for our Allies millions of bushels of wheat.

HERBERT HOOVER.

Note: Subject to change, just now we are required to buy with every pound of flour one pound of other cereal.

### Modify Your Own Recipes

If you have good recipes for bread of any kind make them conform to food conservation by omitting sugar (using substitutes) and animal fats (using vegetable fats) and by using one-fourth wheat substitute.

Try for yourself with your own recipe.

Many people think milk is necessary for good bread, but it is not, although it, of course, adds to the food value, and is therefore advisable when it can be afforded. Water, milk and water, whey, potato water or rise water may be used for the liquid.

Use white potatoes, sweet potatoes, rice, squash and pumpkin as substitutes for the wheat flour.

Those who can save more than the one-fourth will help make up for those who cannot, or are not willing to do their share.

A fair bread can be made on a 50-50 basis.

### YEAST BREAD

You must know that in using substitutes in the making of War Bread that about two-thirds of the mixture should be wheat or rye flour. These are the only two of the cereals which contain gluten, which is a protein substance, which gives strength to the

dough, and holds the expansion made by the use of leavening. The gluten which is in the dough retards the escape of the carbon dioxide and the tension of the warm gas, produced by the action of the yeast, expands the cells; then the dough is puffed up and becomes light and spongy.

In the raising of bread, the conditions should be favorable, first, for the breaking of starch by the diastase into a variety of sugar, and second, by the action of the yeast, a part of the sugar is changed into carbon dioxide and alcohol.

In the manipulation of the dough, extreme cleanliness is necessary. The dough should be a smooth, uniform, well aerated mixture, which may be obtained by thorough beating, light, firm kneading. It should be kept at the temperature most favorable to the growth of the yeast plant (77-95° F.; 25-35° C.) until the gas produced by the yeast in growth has leavened the mixture double its bulk. Kneading down occasionally will, by stretching the gluten, increase the feathery appearance of the crumb.

It is then molded into loaves to fit an individual loaf tin (9½x4½x3½) and carefully pressed into the corners of the tin to assure straight edges. The loaves are set in a warm place till the expansion of the gas has raised them double their bulk, and then baked in an oven heated to the temperature of 350-570° F. The oven should not be too hot at first until the crust is set, which should take the first 15 minutes. During this time the heat should be gradually diminished to prevent too thick and too brown a crust before baking is accomplished. This will take 50 to 60 minutes to cook the starch and destroy the yeast in the center of the loaf.

On taking from the oven, the bread should be cooled in currents of air and then put away, without wrapping, in a closed tin or earthen jar.

### BARLEY BREAD

1 cup liquid,
1 tsp. salt,
2⅓ cups white flour,
⅓ to ¼ cake yeast softened in ¼ cup lukewarm water,
1⅙ cups barley flour.

**Long Process**—Scald the liquid, cool to lukewarm, add the salt, the softened yeast and half the flour. Beat thoroughly, cover and let rise until very light. Then add the remainder of the flour. Knead, cover and let rise again until double in bulk. Shape into a loaf, cover and let rise again until double in bulk. Bake.

**Short Process**—Follow the directions as given above, but add all the flour at once.

U. S. Food Administration.

## BUCKWHEAT BREAD

1½ cups milk,
¼ cup molasses,
2½ cups buckwheat flour,
1½ cups white flour,
1 tsp. salt,
2 tbsp. fat,
½ yeast cake,
½ cup lukewarm water.

Add yeast to lukewarm water. Scald milk and put in mixing bowl with fat and salt. When lukewarm add molasses and yeast. Knead in the flour slowly and let rise until it doubles in bulk. Beat it down and put in greased pan. Let rise until almost double in bulk, bake one hour in a moderate oven.

Jennie W. Gilmore,
Domestic Science Instructor, McKinley High School.

## BRAN BREAD

4 cups bran,
2 cups wheat flour,
½ cup molasses,
2 cups milk or water,
1½ tsp. salt,
3 tbsp. fat,
½ yeast cake,
¼ cup lukewarm water.

Prepare and bake as any light bread.

Jennie W. Gilmore,
Domestic Science Instructor, McKinley High School.

## COTTONSEED MEAL BREAD

2 cups milk or water,
2 cups cottonseed meal,
4 cups flour,
½ yeast cake,
1½ tsp. salt,
2 tbsp. fat,
2 tbsp. sugar,
¼ cup lukewarm water.

Prepare and bake as shorts bread.

Jennie W. Gilmore,
Domestic Science Instructor, McKinley High School.

## CORN MEAL YEAST BREAD

1½ cups liquid,
⅛ to ¼ yeast cake,
1½ tsp. salt,
2½ cups flour,
⅔ cup corn meal, white or yellow.

More if needed.

Note: One-fourth cup of liquid yeast may be used in place of the ¼ yeast cake, and ¼ cup of liquid when making bread by the short process. For the long process sponge method, ⅛ cake of compressed yeast or 2 tbsp. of liquid yeast is sufficient. For the short process use more yeast.

**Long Process**—1. Soften the yeast in ½ cup of lukewarm water. Add ¾ cup of white flour. Beat thoroughly, cover, and if the sponge is to stand over night, let rise at room temperature (about 65° to 70° F.) and at 80° F., if the time is to be shortened. When this sponge is so light that the slightest touch causes it to fall it is ready for the addition of the ingredients.

2. Stir the corn meal into the remaining cup of salted water and heat to the boiling point over the direct flame. Cook 20 minutes in a double boiler or over hot water. Cool until it feels warm to the hand (about 90° to 95° F.).

3. Beat the cooked corn meal into the light sponge prepared as directed above. Add gradually sufficient flour to make a dough somewhat stiffer than for ordinary bread. It is impossible to give the quantity of flour exact because different samples of flour may not absorb the same amounts of liquid. Knead a few minutes until the dough is smooth and elastic.

Continue according to general directions for making yeast bread.

**Short Process**—Cook the corn meal in 1¾ cups of liquid, cool to about 90° F., add the yeast softened in the remaining ¼ cup of liquid (or the liquid yeast) and flour to make a stiff dough. Proceed from this point as directed above.

U. S. Food Administration.

(The long process usually produces better results in this bread.)

## GRAHAM BREAD

1 cup boiling water,
1 cup milk,
¼ cup molasses,
⅔ cup graham flour,
1½ tsp. salt,
½ yeast cake,
¼ cup lukewarm water,
⅓ white flour.

Prepare and bake as entire wheat bread.

Jennie W. Gilmore,
Domestic Science Instructor, McKinley High School.

## DATE BREAD

2 cups warm corn meal mush,
¼ cup brown sugar,
¼ cup lukewarm water,
1 cup dates, stoned and cut,
2 tbsp. fat,
1 tsp. salt,
½ yeast cake.

Mix mush, sugar, salt and fat, add yeast mixed in lukewarm water and flour to knead, cover and let rise till double in bulk,

while kneading add dates. Shape, let rise in pan and bake in a moderate oven.

Jennie W. Gilmore,
Domestic Science Instructor, McKinley High School.

## HOMINY BREAD

1 cup warm cooked hominy,
¼ cup fat,
1 cup scalded milk,
Flour to make dough,
¾ tbsp. sugar,
1 tsp. salt,
½ cake yeast,
¼ cup lukewarm water.

Scald milk, add sugar and fat, when lukewarm add dissolved yeast cake and flour enough to make a sponge. When light add hominy and salt, also enough flour to make soft dough, knead well. When light shape into loaves and let rise twice its size. Bake in hot oven.

Miss J. Crowder,
Domestic Science Instructor Central High School.

## NUT BREAD

1 tsp. shortening,
2 tsp. molasses,
½ tsp. salt,
1 cup milk or water, or ½ of each,
1 yeast cake,
½ cup white flour,
2⅜ cups whole wheat flour,
1 cup chopped nuts.

Same as for white bread. When mixture has risen first time add the nuts before the rest of the flour.

Miss Ella D. Rode,
Domestic Science Instructor Patrick Henry School.

## PEANUT BREAD

1 cup lukewarm liquid,
1 tsp. salt,
3 cups flour (more if desired),
1 cup peanut meal or flour,
1 or 2 tbsp. syrup,
⅛ to ¼ cake yeast softened in ¼ cup lukewarm water.

**Long Process**—Follow the directions given for the long process under Corn Meal Bread, making the sponge with part of the liquid and flour, salt and yeast. When light add the rest of the liquid, the syrup, the peanut meal and the remainder of the flour. Knead until smooth and elastic, adding more flour if necessary to secure the proper consistency. Cover and let rise until double in bulk. Shape into a loaf, cover and let rise 2½ times the original bulk, and bake.

**Short Process**—Dissolve the salt and syrup in the cup of lukewarm liquid, add to the softened yeast and add all to the mixture of the flour and peanut meal. Knead until smooth and elastic. From this point follow the directions as given for long process.

Peanut meal may be prepared by shelling roasted peanuts, removing red skin and crushing the nuts with a rolling pin.

U. S. Food Administration.

## POTATO BREAD

1¼ cups mashed potatoes (packed solid), ⅛ to ¼ yeast cake softened in 2 tbsp. lukewarm water.
1½ tsp. salt, 2¼ cups flour (more or less flour may be needed),

Note: Mashed sweet potato or cooked cereal or squash may be used in the same way as the Irish potato. In using any substitute which has a marked flavor it is better to try the bread first with less than 1¼ cups and add more liquid. Squash rolls are very good.

**Long Process**—Cool the mashed potatoes to lukewarm, add the salt and the yeast softened in the warm water and about ¼ cup of flour. Mix well, cover and let rise until very light. To the well-risen sponge, add the remaining flour, kneading thoroughly. The dough should be very stiff, as it softens considerably in rising. Cover and let rise until double in bulk. Shape into a loaf, cover, let rise again until it has increased 2½ times in bulk, and bake.

**Short Process**—Follow the directions as given above, but add all the flour at once. The dough in this case is so stiff that it is difficult to work in all the flour. U. S. Food Administration.

## OATMEAL BREAD

3 cups hot oatmeal mush,
3 tbsp. Crisco,
2 tsp. salt,
¼ cup molasses,
1 yeast cake,
½ cup lukewarm water,
7 cups whole wheat flour,
1 cup corn meal.

Mix the Crisco, salt, molasses and mush; when cooled to lukewarm add the yeast dissolved in the water. Add the corn meal and one-half of the flour, beat thoroughly, cover and set to raise until double its bulk; add balance of flour, knead until elastic. Place in greased pans, let rise until double its bulk. Bake in moderate oven 50 to 60 minutes. Miss Mary Nicholson.

## ROLLED OATS AND ENTIRE WHEAT FLOUR BREAD

2½ cups boiling water,
½ cup molasses,
1 tsp. salt,
1 tbsp. fat,
½ yeast cake,
¼ cup lukewarm water,
2 cups rolled oats.

Whole wheat flour to make a soft dough; add boiling water to oats, let stand one hour; add molasses, salt, fat, yeast and flour, beat thoroughly; let rise to double its bulk again, beat well, turn into greased pans, let rise again, and bake.

Jennie W. Gilmore,
Domestic Science Instructor McKinley High School.

## SHORTS BREAD

2 cups milk or water,
1 cup shorts,
2 cups flour,
1½ tsp. salt,
2 tbsp. fat,
2 tbsp. sugar,
½ yeast cake,
¼ cup lukewarm water.

Make a sponge, using flour; when this is light add shorts.

## SQUASH BREAD

1 cup steamed squash,
¼ cup brown sugar or molasses,
1 tsp. salt,
Flour to knead,
1 cup scalded milk,
¼ cup fat,
½ yeast cake,
¼ cup lukewarm water.

Scald milk, add fat and sugar or molasses; when lukewarm add dissolved yeast cake and enough flour to make a sponge. When light add salt and squash and enough flour to knead, let rise, shape into loaves and when twice the size bake in hot oven.

Miss J. Crowder,
Domestic Science Instructor Central High School.

## YEAST

Because of the high price of yeast it may be economical when bread is made frequently and in large quantities to prepare yeast.

In making the bread the amount of yeast used, of whatever kind, will depend upon the time in which the process is to be carried through.

## LIQUID YEAST

4 medium-sized potatoes,
1 qt. hot water,
1 tsp. salt,
1 cake dry yeast softened in ¼ cup warm water, or 1 cake of compressed yeast,
¼ cup sugar.

Wash, pare and cook the potatoes in the water, drain, mash, and return to the water, make up to one quart. Add the sugar and salt and allow the mixture to cool. When lukewarm add the yeast. Keep at room temperature (65° to 70° F.) for 24 hours before using. If kept for a longer time it should be poured into a sterilized jar and put in a dark, cool place.

## BREAD TESTS

(1) Will your dough stick to the board without the use of flour?

If it does, then more flour must be kneaded into the dough to make it the right consistency.

(2) Does your dough have blisters on the surface?

If so, you have kneaded it enough.

(3) Cut the dough to see if the air is evenly distributed throughout the mass.

If it is not, continue the kneading.

(4) Knead for about 15 to 20 minutes the first kneading. The last kneading must be of short duration, otherwise you will drive off the gas formed in the raising of the dough.

## HOW TO CONSERVE WHEAT

Cut the loaf on the table, and only as required.

Do not have stale bread.

If any breads, muffins, gems are left from meals, toast and use with creamed fish or left over bits of meat, fish or vegetable.

If there are bits of bread left, dry and grind, put in cheese cloth bag, using the crumbs in scalloped dishes, croquettes and as substitute for wheat flour in breads and puddings.

Do not use crackers made from wheat (or graham) flour.

Do not use breakfast cereals made from wheat.

If you use macaroni, spaghetti, any Italian paste or noodles, remember that it is made of wheat and do not serve bread at the same meal.

Use corn starch or rice flour for thickening sauces and gravies and in puddings (use half as much as you would of flour).

Remember—bread made of mixed flours is better body building material than that made from one grain alone.

"Have at least one wheatless meal a day. Use corn, oats, barley, or mixed cereal rolls, muffins and breads in place of

white bread certainly for one meal and, if possible, for two. Eat less cake and pastry. As to white bread, if you must buy from a baker, order it a day in advance; then he will not bake beyond his needs. Use stale bread for toast and cooking."

Substitute potatoes when they are plentiful for all bread in two meals a day.

U. S. Food Administration.

## A COMPARISON OF BATTERS AND DOUGHS

| Kind. | Proportion. | Appearance. | Use. |
|---|---|---|---|
| Pour batter | 1 flour to 1 water | Thin pastry | Griddle cakes, waffles. |
| Drop batter | 2 flour to 1 water | Thicker | Gems, muffins. |
| Soft batter | 3 flour to 1 water | Soft sticky mass | Cakes, biscuit, doughnuts. |
| Stiff batter | 4 flour to 1 water | Not sticky | Breads |

## CHIEF PROTEINS OF WHITE FLOUR

Gliaden: gives elasticity to the dough.

Gluten: gives strength to hold up the expansion made by the use of leavenings.

## QUICK BREADS AS WHEAT SAVERS

Many processes have been devised for making dough light without the use of yeast; the object of these is to shorten time and labor.

## PROCESS OF LEAVENING

1. By air—expansion with heat and moisture.
   Ex.—Eggs beaten to a froth.
2. By steam—expansion of dough by application of sudden heat in oven.
   Ex.—Popovers.
3. By chemical reaction (formation of carbon dioxide gas).
   1—Soda (alkali) and molasses (acid).
   2—Soda (alkali) and sour milk (lactic acid).
   3—Soda (alkali) and cream of tartar (acid).
4. Commercial baking powder (three classes).
   1—Cream of tartar powders or tartrate powders.
   2—Phosphate powders.
   3—Alum powders.

Note: The carbon dioxide gas which is formed in the above reactions expands with heat and moisture, making the bread light.

## CORN MEAL BISCUITS

1½ cups flour,
½ cup corn meal,
½ tsp. salt,
¾ cup sour milk,
3 tsp. baking powder,
½ tsp. soda,
2 tbsp. veg. fat.

Mix and sift dry ingredients. Add the fat, mix thoroughly, then add one-half the milk; then add more gradually to make a soft dough, mixing with a knife; when smooth turn dough on to a flour board; toss until coated with flour; roll out ¼ inch thick and cut out. Bake in hot oven 12 to 15 minutes.

Miss Winnetta H. Grady,
Domestic Science Instructor.

## GRAHAM BISCUITS

1 cup white flour,
1 cup graham flour,
3 tsp. baking powder,
⅔ cup milk,
2 tbsp. sugar,
1 tsp. salt,
¼ cup veg. fat.

Mix and sift all dry ingredients, cut in vegetable fat and moisten dough evenly. Put dough on slightly floured board, pat out ½ inch thick and cut with biscuit cutter. Bake in a hot oven.

Miss E. Rode,
Domestic Science Instructor, Patrick Henry School.

## SHORTS BISCUITS

1 cup shorts,
1 cup flour,
3 tsp. baking powder,
½ tsp. salt,
2 tbsp. shortening,
about ¾ cup milk.

Sift together dry ingredients, chop in shortening with a knife until fine. Add milk gradually, mixing with a knife. Roll out dough ½ inch thick and cut with a biscuit cutter. Handle dough as little as possible. Bake in a hot oven about 15 minutes.

Hilda Z. Rollman,
Domestic Science Instructor, Cote Brilliante School.

## MUFFINS

### BUCKWHEAT MUFFINS

1 cup buckwheat,
1 cup wheat flour,
4 tsp. baking powder,
¾ tsp. salt,
1¾ cups milk,
1 egg,
1 tbsp. melted veg. fat,
2 tbsp. molasses.

Sift together the dry ingredients. Combine the milk, beaten egg, melted fat and molasses. Add the liquid to the dry ingredients. Mix well and bake one-half hour in a moderately hot oven.

Rye flour or 1 cup of barley and 1 cup of wheat may be used in this recipe if the liquid is reduced to 1 or 1¼ cups. The buckwheat flour absorbs more liquid than other flours.

If you can get flour, barley flour, rye meal, peanut flour, soy bean meal, a great variety of muffins can be made. Combinations of one-third barley flour, one-third corn flour and one-third wheat flour, or one-half rye meal, one-fourth corn meal and one-fourth wheat flour have been found satisfactory.

U. S. Food Administration.

## 1.—CORN MUFFINS

| | | | |
|---|---|---|---|
| 1 | cup milk, | 1½ | tbsp. veg. fat or oil, |
| 1 | cup corn meal, | 1 | tsp. salt, |
| 1 | egg, | 2 | tsp. baking powder. |

Beat egg till light, add milk, then corn meal to which baking powder and salt have been added. Melt fat and add to batter. This should be a drop batter. Fill hot molds three-fourths full and bake in a hot oven.

Elizabeth Mount Walker,
Domestic Science Instructor, University City School.

## 2.—CORN MUFFINS

| | | | |
|---|---|---|---|
| 2 | cups corn meal, | ¼ | tsp. soda, |
| 1 | cup hot water, | 1 | tsp. salt, |
| 1 | dessert spoon molasses, | 1 | tbsp. melted Troco (shortening). |
| 2 | tsp. baking powder, | | |

Pour hot water over corn meal to which has been added baking powder, soda and salt. Add molasses, melt Troco and whip into the mixture and put in hot muffin rings. Mrs. Haydock.

## GRAHAM AND CORN MEAL MUFFINS

| | | | |
|---|---|---|---|
| 1 | cup graham flour, | 3 | tsp. baking powder, |
| 1 | cup meal, | 1 | tsp. salt, |
| 1¼ | cups milk, | 1 | tbsp. sugar, |
| 1 | egg, | 1 | tbsp. veg. fat. |

Beat the eggs, add the milk, sugar, salt and fat. Add sifted flour, corn meal and baking powder. Pour into greased pans, bake in moderate oven 20 to 30 minutes.

Miss Mary Nicholson,
Domestic Science Instructor.

### COOKED CEREAL MUFFINS (10-12 muffins)

1½ cups flour,
4 tsp. baking powder,
¾ tsp. salt,
1 cup cooked rice,
½ cup milk,
1 egg,
1 tbsp. melted fat.

Sift together the dry ingredients. Add the milk, beaten egg and melted fat to the cooked rice. Beat thoroughly. Finally add the sifted dry ingredients. Mix well. Bake in greased muffin tins about one-half hour in a moderately hot oven.

Other cooked cereals or mashed potatoes may be used in this recipe. If the dough is too soft, add a little more flour, if too thick, a little more liquid.

U. S. Food Administration.

### SOUTHERN RICE BREAD

2 cups white corn meal,
3 eggs,
1¼ pt. milk,
1 cup cold boiled rice,
2 tbsp. veg. oil,
½ tsp. salt,
4 tsp. baking powder.

Beat the eggs until light without separating; add the milk, meal, salt, rice and melted vegetable oil. Beat thoroughly for two minutes, add the baking powder and mix again. Grease three deep pie dishes, turn in the mixture, and bake in a hot oven thirty minutes.

### BARLEY AND WHOLE WHEAT MUFFINS

2 eggs,
3 tbsp. sugar,
2 tbsp. olive oil,
1 qt. sour milk or buttermilk,
2 cups barley meal,
2 cups whole wheat flour,
1 tsp. baking soda,
1 tsp. salt,
2 tsp. baking powder.

Mix and beat well for five minutes. Bake in well greased muffin tins for twenty minutes in a moderate oven.

### BARLEY SCONES

1 cup barley meal,
1 cup whole wheat flour,
¼ tsp. salt,
½ tsp. soda,
2 tsp. baking powder,
¾ cup sour milk,
2 tbsp. veg. oil.

Mix and sift the dry ingredients. If coarse whole wheat flour is used, do not sift it. Add sour milk and vegetable oil and blend the mixture well. Turn that soft dough thus formed on to a floured board, knead slightly, roll to one-half thickness, cut into fancy shapes and bake in a hot oven.

## BARLEY PONE

1 cup freshly cooked hominy grits,
2 cups milk,
3 tbsp. butter,
½ tsp. salt,
1 cup barley meal,
2 tsp. baking powder.

Add to the cooked hominy grits the milk and butter. Cool and add salt, barley meal and baking powder sifted together, then the well beaten eggs. Pour into a round, shallow, buttered baking dish and bake in a moderate oven forty-five minutes. Cut in triangular pie-shaped pieces and serve hot from the dish in which it was baked.

## CORN AS BREAD

Corn bread is especially good made with sour milk and soda; but sweet milk and baking powder are satisfactory. Eggs improve the flavor and add to the food value, but may be omitted if too expensive.

## CORN BREAD

(1.)

2 cups corn meal,
2 cups sweet milk (whole or skim),
4 tsp. baking powder,
1 tbsp. sugar,
2 tbsp. fat,
1 tsp. salt,
1 egg (may be omitted).

(2.)

2 cups corn meal,
2 cups sour milk,
1 tsp. soda.
1 tbsp. sugar,
2 tbsp. fat,
1 tsp. salt,
1 egg (may be omitted).

Mix dry ingredients. Add milk, well-beaten egg and melted fat. Beat well. Bake in shallow pan for about 30 minutes.

## CORN DODGERS

2 cups corn meal,
1 tsp. salt,
2 tsp. fat,
1¾ cups boiling water.

Pour the boiling water over the other materials. Beat well. When cool form into thin cakes and bake ½ hour in a hot oven. These crisp biscuits are good served hot with butter or gravy. Eat them with your meat and vegetables.

U. S. Food Administration.

## AN OLD SOUTHERN RECIPE

Here is an old-fashioned soft spoon bread that Southerners like. With milk or syrup it makes a satisfying meal.

## SPOON BREAD

2 cups water,
1 cup milk (whole or skim),
1 cup corn meal,
1 tbsp. fat,
2 eggs,
2 tsp. salt.

Mix water and corn meal and bring to the boiling point and cook 5 minutes. Beat eggs well and add with other materials to the mush. Beat well and bake in a well greased pan for 25 minutes in a hot oven. Serve from the same dish with a spoon. Enough for six.

U. S. Food Administration.

## STEAMED CORN BREAD

2 cups yellow corn meal,
1 cup flour,
1 tsp. salt,
2 tbsp. sugar (4 tbsp. molasses),
1¼ tsp. soda,
½ tsp. baking powder.

Sift these ingredients together and then add 2½ cups sour milk. Beat well, pour into a buttered mold with a tight fitting cover and steam for two hours. Remove and brown in oven.

## BANANA FLOUR BREAD

1 cup banana flour,
1 cup bread flour,
2 tsp. baking powder,
1 cup milk,
½ tsp. salt,
3 tbsp. sugar,
2 tbsp. veg. fat.

Mix the dry ingredients; cut in fat, then add milk, put into greased loaf pan; bake in a moderate oven.

## PEANUT AND RAISIN BREAD

1 qt. whole wheat flour,
¼ cup sugar,
1 tsp. salt,
1 cup milk,
1 tbsp. fat,
4 tsp. baking powder,
1 cup chopped peanuts,
½ cup chopped raisins.

Mix the dry ingredients, cut in fat, add nuts, raisins and milk. Put into a greased loaf pan. Bake in a moderate oven.

## PRUNE BROWN BREAD (Steamed)

1 cup corn meal,
1 tsp. salt,
2 cups whole wheat flour,
½ cup molasses,
1 tsp. soda,
1 cup sour milk,
1 cup prunes chopped fine.

Mix dry ingredients, add molasses, milk and prunes. Fill greased molds two-thirds full. Grease the cover and cover tightly. Steam three hours.

### OATMEAL MUFFINS

1½ cups milk,
2 cups rolled oats,
1 egg,
2 tbsp. molasses,
1 tbsp. melted fat,
1 cup flour,
4 tsp. baking powder,
¾ tsp. salt.

Pour hot milk over the oats and let soak about one-half hour. Add the beaten egg, molasses and melted fat. Finally add dry ingredients which have been sifted together. Bake in greased muffin tins one-half hour in a moderately hot oven.

### BOSTON BROWN BREAD

1 cup rye flour,
1 cup graham flour,
1 cup corn meal,
½ tsp. salt,
3 cups milk,
¾ cup molasses,
6 tsp. baking powder,
1 cup raisins if desired.

Sift the dry ingredients into the liquids, mix quickly, pour into greased cups, cover the top and steam 2 to 3 hours.

Miss E. D. Rode,
Domestic Science Instructor, Patrick Henry School.

### BAKED BROWN BREAD

⅓ cup corn meal,
2½ cups graham flour,
1½ tsp. soda,
1 tsp. salt,
1 cup sour milk,
1 cup molasses,
1 cup water.

Mix the dry ingredients; mix the wet ingredients; pour the wet into the dry and beat well. Pour the batter into three oiled pound baking powder cans; leave uncovered and bake in a slow oven for 1½ hours. It is well to use an asbestos mat under the cans while baking so as to avoid burning the bread.

Miss Leigh Harris,
Domestic Science Instructor, Yeatman High School.

### GRIDDLE CAKES

### CORN MEAL GRIDDLE CAKES

2 cups corn meal,
1½ cups milk or water,
1 tbsp. fat,
1 egg,
3 tsp. baking powder,

Miss Alice Waugh,
Domestic Science Instructor Ritenour School.

## GRIDDLE CAKES

1 cup milk,
1 egg,
1 tbsp. melted fat,
1½ cups cooked oatmeal,
½ cup flour,
¾ tsp. salt,
4 tbsp. baking powder.

Combine the milk, beaten egg and melted fat. Beat this into the cooked oatmeal. Add the flour, salt and baking powder which have been sifted together. Bake on a hot greased griddle.

Other cooked cereals, mashed Irish potatoes, sweet potatoes, etc., may be used in the place of the oatmeal. When rice is used, ¼ cup more flour is necessary.

Griddle cakes may also be made by using one-half or more of corn meal or buckwheat flour.

If desired, sour milk may be substituted in these recipes for the sweet. In doing this the quantity must usually be increased a little. Use ½ teaspoonful of soda for each cup of sour milk. For each ½ teaspoonful of soda the quantity of baking powder can be reduced by 2 teaspoonfuls.

U. S. Food Administration.

## BATTER CAKES

1 cup corn meal,
1 cup bran,
1 cup hot water,
1 dessert sp. molasses,
2 tsp. baking powder,
½ tsp. soda,
1 tsp. salt,
1 tbsp. melted Troco.

Sift corn meal, baking powder, soda and salt, add bran, pour over this the hot water. Add molasses and lastly the melted Troco whipped in.

Mrs. Haydock.

Note: Use stale bread crumbs to replace part of flour in making muffins, gems and griddle cakes, also in steamed puddings.

Steam a vegetable, cornbread, and rice in steamer at one time to conserve fuel.

## CEREALS

Corn meal, oatmeal, rice, hominy (grits). These are much cheaper than the "ready-to-eat" breakfast foods. A "ready-to-eat" breakfast food may cost 15 cents for a big package, but if the package contains only one-quarter pound—60 cents a pound for cereal! This is eight or ten times as expensive as corn meal

at 6 or 7 cents a pound. Look for the weights printed on the package and get the most for your money.

Corn meal mush and oatmeal are good only when well cooked. Many people use too little salt and don't cook them long enough.

All cereals should be cooked in a double boiler; one can be improvised by setting a pail or pan into a kettle of water. Cereals for breakfast may be cooked the day before, but should not be stirred while reheating. A tablespoonful or two of cold water on top will prevent a hard skin from forming while standing. All prepared cereals are better if cooked for a longer time than the package directions indicate. It is hardly possible to cook any grain too long. The fireless cooker is especially valuable for cooking cereals, but a longer period of time must be allowed than for cooking in a double boiler.

## GENERAL DIRECTIONS

| Kinds. | Quan. to 1 c. water. | Time of Cooking. |
|---|---|---|
| Whole or cracked | ¼ cup | 3-12 hrs., except rice |
| Flaked | ½ cup | ½-3 hrs. |
| Granular | 3 tbsp. | 1-4 hrs. |

Use ½ teaspoonful of salt to each cup of water. Have water boiling hot. Add cereal gradually. Let mixture cook directly over the flame 5 minutes. Place over boiling water or in fireless cooker to cook slowly for a long time, without stirring, and covered. Fruit may be cooked with the various cereals, raisins, figs and dates being most acceptable. (Use water.) For hot weather, cereals may be cooked the day before, molded and served cold.

Gruels are prepared from flaked or granular cereals, using 1½ times the proportionate amount of water. Gruels after cooking should be strained and reheated.

## EXAMPLES OF CEREALS

| Whole. | Flaked. | Granular. |
|---|---|---|
| Barley | Rolled oats | Vitos |
| Rice | | Corn meal |
| Macaroni | | |

## CEREALS

Cereals act as fuel to let you do your work, much as the gasoline burning in an automobile engine makes the car go. This you can think of as their chief business. And they are usually your cheapest fuel. Besides they give your body some building material.

U. S. Food Administration.

## CORN MEAL AND MILK

Do you use corn meal mush for a breakfast food? It is both cheap and good. Cooked in skim milk instead of water it is extra fine and the food value of the dish is nearly doubled.

## CORN MEAL MUSH

To cook corn meal mush for five people use 1½ cups corn meal, 2 teaspoonfuls salt (level), 5 or 6 cups water. Bring salt water to a boil. Stir in the corn meal slowly. Don't let it lump. Cook it at least 30 minutes. It is better when cooked for three hours, or over night. Use a double boiler or a fireless cooker.

## CORN MEAL MUSH WITH CHEESE

Prepare the mush as in the foregoing recipe and pour into a flat, wet pan to cool. When cold, turn out and cut in half-inch slices with grated cheese and paprika and bake in a hot oven to a delicate brown. This dish possesses all the supplies of a well-balanced food. The meal supplies carbohydrates; the cheese, the protein and some fat. It is a tempting dish, too, which cannot be said of all wholesome foods.

Caroline B. King, G. H. K.

## OATMEAL

For oatmeal use 2½ cups rolled oats, 2½ teaspoonfuls salt, 5 or 6 cups water. Bring the water to a boil, stir the rolled oats slowly into the boiling water and cook for one hour, or over night. Eat the cereal with milk or syrup or butter or butter substitutes.

## TO BOIL HOMINY

Soak one cup of hominy in the evening, let it stand over night then put on to boil with six cups boiling water, one teaspoonful

salt, and boil slowly all day, stirring occasionally, or put in top of double boiler or fireless cooker. The best thing during the cold weather is to always have a crock of cold boiled hominy on hand; it keeps a week or more in cold place, and is a great help to the housekeeper, taking the place of potatoes and bread, besides being very wholesome. This serves five adults.

### HOMINY CAKES

1 cup cracked corn or pearly hominy,
7 cups boiling water,
2 tsp. salt,
3 tbsp. fat.

Boil the corn and water for ½ hour, add seasonings, place vessel over water and cook from six to eight hours. Serve in place of potatoes. For the second day put the left over cold hominy through the meat grinder, add a beaten egg, a tablespoonful sugar and ½ teaspoonful vanilla; make into cakes, flour and cook in a frying pan until delicately browned on both sides. Serve these cakes instead of potatoes.

Miss Mary Evans,
Domestic Science Instructor, Yeatman High School.

### STEAMED RICE

Cook rice as any whole cereal. The time is 20 minutes, or until kernels are soft. Uncover, that steam may escape. When rice is steamed for a simple dessert use one-half the quantity of water. Steam until rice has absorbed water, then add scalded milk for remaining liquid.

### BOILED RICE

Pick over and wash rice. Add gradually to a large quantity of rapidly boiling salted water. Stir at first with a fork to prevent any grain from sticking to the bottom of kettle. Let it boil rapidly 20 minutes, or until tender. Drain in strainer, pour over it cold water, reheat in oven. Serve plain as a vegetable, or use for croquettes, etc. One cupful of rice when cooked will measure nearly 4 cups.

### BOILED MACARONI

Break macaroni in two-inch pieces and cook as boiled rice.

## SAUTED MUSH

Pack hot corn meal mush in wet molds. Cool, and cover to prevent crust forming. Remove from mold, cut in ½-inch slices and saute. If slices are dipped in flour or corn meal sauteing should be made thicker, using 4 tablespoonfuls granular cereal to 1 cup of water.

## UNPOLISHED RICE

The hull which is removed in polishing rice is very rich in mineral content. It is said that armies fed on polished rice without this mineral being supplied by other foods, quickly contract scurvy, while those fed on brown or unpolished rice do not have the disease. It seems that this most valuable part of the rice is being sold as waste stock feed. If this can be bought at 2½ cents or 3 cents per pound, it should be used in large quantities everywhere. If this cannot be obtained, then every woman should ask her grocer for brown or unpolished rice.

## BARLEY MUSH.

½ cup barley meat,
2 cups boiling water,
½ level tsp. salt.

Method: Add the barley meal to the boiling salted water, stirring constantly. Cook over the fire for 5 minutes, then over hot water for one hour. Serve with sugar and cream.

## FRUITED CEREALS

Note: Oats are among the highest in caloric values of all the cereals.

Figs and dates and raisins are conceded the highest in caloric or food value of all the fruits.

The combination of these cereals and fruits therefore offers more nutrition for the money expended than any other staple food.

When cereal is about half cooked, add fruit whole or chopped.

# Meat Savers

"Use more poultry, rabbits, and especially fish and sea food in place of beef, mutton and pork.'"

U. S. Food Administration.

Poultry:
- Chicken
- Turkey

Game:
- Duck
- Goose
- Squab
- Quail
- Rabbits

Nuts:
- Almonds
- Walnuts
- Pecans, etc.

Peanuts
Beans
Peas
Lentils
Cheese:
- Cottage cheese
- Whole milk cheese

Milk:
- Whole milk
- Skimmed milk
- Sour milk

Eggs

Fish:
- Base
- Bluefish
- Crab
- Cod
- Catfish
- Clams
- Haddock
- Halibut
- Herring
- Lobster
- Mackerel
- Oyster
- Shadroe
- Shrimp
- Smelt
- Trout
- Tripe
- Tuna
- Salmon

Cereals:
- Oatmeal
- Corn meal

Note: Use beans, they have nearly the same food value as meat if used with milk. Do not use either beef, mutton or pork more than once daily, and then serve smaller portions. Use all left-over meat cold or in made dishes. Use soup more freely. Cereals contain much protein. A combination of cereals is better than one alone. Milk is most important. Use much of it.

U. S. Food Administration.

Note: New kinds of fish, especially recommended by Bureau of Fisheries: Bowfin, Burbot, Whiting, Sable fish, Eulachion.

## WHY YOU SHOULD USE MEAT SUBSTITUTES

Meat is bound to be dear. It was scarce and high before the war.

For years the number of people in this country has been increasing faster than the number of meat animals. Much of the open country out West where cattle used to range by hundreds of thousands has been fenced into farms.

Then came anthrax, foot and mouth disease, hog cholera, one plague after another.

Four years ago our government began a great campaign for more livestock, just to feed us in peace times.

War doubles and trebles the demand for our meat. We must provide meat for the boys in the trenches. We must stretch our meat supply. We must Save Meat to Save Ourselves.

We can eat fish, it's as hearty as meat. Eat poultry, it does not make army rations. Use milk, eggs and cheese, they are almost the same as meat.

Peanut butter and vegetable oils are good fats. Dried beans, peas and grains take the place of meat if milk is used with them, or cheese or eggs or plenty of green vegetables.

One ounce of meat a day for every one in the country amounts to the meat from 4,400,000 animals in a year. Save your ounce. It's a little thing to do to save your country.

U. S. Food Administration.

## THE EFFECT OF HEAT ON PROTEIN

Egg albumin or meat albumin serve as good examples to show the effect of heat on protein. If heat is applied a gradual process of hardening begins at the outer edge of the albumin, and continues toward the center in thin lines or fibrils until the transparent albumin becomes dense and leathery. This change is known as coagulation, and is typical of the change in all protein foods as the result of the application of heat. A few simple experiments will show the effect of the different temperatures on protein. At 134 degrees F. the fine fibrils of a semi-solid white substance appear in the liquid albumin. At 160 degrees F. it

changes to a tender jelly-like substance. At 180 degrees F. it becomes dense and white. Boiling temperature changes it into a tough, leathery substance. Therefore, the higher the temperature the tougher and harder the protein; consequently all protein foods are best if cooked at as low a temperature as will render them palatable.

## LEGUMES AS MEAT SUBSTITUTES

Dried peas and beans are rich in muscle making principle and for this reason are often called the "poor man's beef," of very poor quality, about ¼ as good in quality as animal protein, but because they are somewhat difficult of digestion, they should not replace animal protein altogether, but should be used with discretion as meat substitutes. Soy beans are an exception to this. Cereal protein is about two times as valuable for growth as beans. No matter how dried legumes are to be cooked, they must first be soaked over night in cold water, that they may absorb moisture to replace that lost in evaporation; after soaking dried legumes may be cooked in almost any of the ways which fresh ones are cooked. It is then necessary to drain and wash them thoroughly, cooking gently until tender in water containing a very little common baking soda. This tends to soften the water and hastens the cooking process; it also aids in removing excess sulphur.

There is nothing in all cookery that needs more careful seasoning than dried legumes; salt and pepper, lemon rind, nutmeg, onion, celery salt, celery leaves, mustard in the right proportions may be used. As these legumes are deficient in fats, they should be combined with some fatty ingredients to preserve the balance—salt pork and beans.

## SOY BEANS

Soy beans are excellent substitutes for meat. They contain almost twice as much protein as beefsteak, and more fat than any other of the legumes except the peanut. The protein of the soy bean is more nearly like animal protein in value than that of other plant foods as far as is now known. The fat contains the important growth-promoting fat soluble vitamine. The yellow or green varieties are best for eating purposes, the darker varieties having an unpleasant strong taste.

Green soy beans, when three-fourths grown, may be cooked and seasoned like the lima bean; change the water once during the cooking.

Dried soy beans should be soaked in 5 per cent salt water 12-16 hours. Drain, put on to cook in hot water and cook slowly until tender (6-8 hours), changing the water often while cooking in order to remove the strong flavor.

1 lb. of meat costs $0.35, contains 224 calories.
1 lb. soy beans costs $0.05, contains 1970 calories.
1 lb. navy beans costs $0.20, contains 1605 calories.

## SOY BEAN CROQUETTES

2 cups cooked soy beans (chopped),
1 cup chopped onions,
2 tbsp. oleo,
Salt,
1 cup cooked rice,
1 tbsp. chopped pickle,
1 beaten egg,
Pepper.

Combine as for soy bean loaf. Form into croquettes, roll in egg and cracker crumbs, and fry in deep fat or bake in oven.

## SCALLOPED SOY BEANS

Alternate layers of beans and white sauce. Cover with buttered crumbs and grated cheese. Brown in oven.

## BAKED SOY BEANS

2 cups soy beans, parboiled,
⅓ cup molasses,
Cayenne pepper,
Salt pork.

Place in baking dish parboiled soy beans, in the midst of which is buried 2 pieces of salt pork one inch square, add molasses, salt, cayenne and a little mustard and onion if desired. Bake with cover until tender, then remove cover to brown.

## SOY BEAN LOAF

2 cups cooked soy beans (chopped),
1 cup cooked rice,
1 chopped onion,
1 tbsp. chopped pickle,
2 tbsp. oleo,
1 beaten egg,
Salt, pepper.

Serve with tomato or brown sauce.

Put soy beans through a meat chopper, combine with other ingredients and form in a loaf. Brown in the oven.

## SOY BEAN SOUFFLE

1 cup soy beans,
2 tbsp. veg. oil,
4 tbsp. flour (rice flour if you have it),
1 cup milk,
1 tsp. salt,
⅓ tsp. pepper,
2 or 3 eggs.

Cook beans until tender (4 hours), drain and rub through strainer. Heat oil, add flour and milk, boil 1 minute, add 2 cups bean pulp, cool and add beaten egg yolks and seasoning. Beat white of eggs until stiff and fold into bean mixture. Bake in buttered casserole in moderate oven 30 minutes.

## SOY BEAN AND TOMATO STEW

2 tbsp. fat,
1 medium onion,
1 small green sweet pepper,
2 cups cooked soy beans,
1½ cups cooked tomatoes,
1 tbsp. flour,
Salt,
Pepper.

Melt the fat in a frying pan and add the chopped onion and pepper. When these are tender add the soy beans, stirring until they are slightly browned in the fat. Add tomatoes and cook ten minutes. Thicken with the flour mixed with a little water or tomato juice.

Patriotic Food Show,
St. Louis, Mo.

## JUNGLE STEW ( SOY BEANS)

1 qt. water,
3 small onions (chopped fine),
1 can kidney or
1 cup soy beans (dry),
½ lb. macaroni,
1 pt. tomatoes,
2 tbsp. butter sub.,
Salt, pepper.

Fry onion in fat, add tomatoes and water, allow to come to boiling point, add macaroni, cook twenty minutes. Add beans which have been cooked. Let simmer, serve hot.

Oswego (Kansas) College.

## BAKED BEANS (NAVY)

2 cups beans,
2 tbsp. molasses or brown sugar,
¼ tsp. mustard,
1 tsp. salt,
2 oz. salt pork or bacon.

Wash and soak beans over night, add a little baking soda and

cook until the skins easily slip from the bean (easily determining by taking a bean on tip of spoon and blowing on it). Add the seasoning and the pork which has been previously scraped and scored (cut in strips just through rind). Cover and bake slowly 6-8 hours; uncover the last hour of the cooking so that the rind of the meat may become brown and crisp. If less seasoning is preferred the amount of molasses or sugar may be cut down.

### BEAN TIMBALES

2 cups beans,
1 egg,
⅔ tsp. salt.
1 tbsp. catsup,
⅛ tsp. cayenne pepper,
Few drops of onion juice.

Put beans through a sieve, add seasoning, egg and catsup. Cook in pan of hot water in a moderate oven. Serve with tomato sauce.

Miss J. Crowder,
Domestic Science Instructor, Central High School.

### PEANUT LOAF

2 cups bean pulp,
1 cup strained tomato,
2 eggs (beaten),
2 cups peanuts (chopped fine),
1 cup or more bread crumbs,
Season with minced celery, onion and salt.

Mix in order named. Make into loaf, and bake in a moderate oven until stiff enough to slice. Good hot or cold (8 servings).

Jesse Cline,
St. Joseph, Mo.

### MOCK CHICKENS

2 cups beans,
⅓ loaf bread,
¼ cup fat,
½ tsp. sage,
Salt, pepper.
½ cup hot water.

Wash beans, soak over night in cold water, drain and cook in boiling water, simmer till tender, but not broken, drain and mash. Make a stuffing of bread crumbs, melted fat, sage and seasoning. Arrange in a baking dish, alternating mashed beans and dressing. Cover with buttered crumbs and bake 20 minutes. Serve with tomato sauce or white sauce flavored with parsley.

Anna Jensen,
Domestic Science Instructor, St. Joseph, Mo.

## HORTICULTURAL LOAF (BEAN LOAF)

Mix two cups of beans with three chopped pimentos, one cup of bread crumbs cooked to a paste with half a cup of tomato puree. Season with pepper, a teaspoonful of salt, grated lemon rind, and a few drops of onion juice. Beat the yolks of two eggs well, add to the mixture and fold in the stiffly beaten whites, pile into a well-oiled bread tin, set in a moderate oven and cook until firm. Serve with tomato sauce.

## COWPEAS

In composition cowpeas are similar to navy beans, and the uses and methods of preparation are much the same. Cowpeas are low in fat, but when this is added in the process of cooking they may well take the place of meat in the meal.

Cowpeas should be soaked in water several hours or over night. Simmer until tender and season well. Pork fat or vegetable oils, cheese, onion, green pepper, celery or tomatoes will combine well as seasonings with cowpeas.

## BOILED COWPEAS

Soak the cowpeas and cook half done. Add the pork, cut into small squares. Cook until tender, allowing most of the water to evaporate.

2 cups cowpeas, ¼ pound salt pork or 3 tbsp. drippings.

## 1.—BAKED COWPEAS

Cover with water and bake slowly several hours.

1 qt. parboiled cowpeas, Salt,
¼ lb. salt pork, Pinch of cayenne pepper,
½ tsp. mustard, ⅓ cup sorghum molasses.

## 2.—BAKED COWPEAS

Bake as above, substituting for the molasses

1 onion, ¼ cup vinegar,
2 cups tomato juice, 1 tbsp. sugar.

## SCALLOPED COWPEAS

2 cups cooked cowpeas, 1 cup cheese sauce.

Place in baking dish alternating layers of peas and sauce. Cover with buttered crumbs and brown in oven.

### DRIED PEAS WITH RICE AND TOMATOES

1½ cups rice,
2 cups dried peas,
6 onions,
1 tbsp. salt,
¼ tsp. pepper,
2 cups tomatoes (fresh or canned).

Soak peas over night in two quarts of water, cook until tender in water in which they soak, add rice, onions, tomatoes and seasoning and cook 20 minutes.

## SAUCES

Especial attention must be given to the seasoning of dishes which have as their foundation beans, rice, or other foods having little flavor of their own.

Use peppers, onions, garlic, leek, celery, catsup, Worcestershire sauce, etc., for increasing flavor. Bean and nut loaves should be served with highly seasoned sauces.

### ITALIAN TOMATO SAUCE

2 cups cooked tomatoes,
½ cup finely cut onion,
½ cup grated or cut turnip,
½ cup grated or cut carrot,
2 tsp. salt,
½ cup cut green peppers,
4 tbsp. butter sub. or vegetable drippings,
2 tbsp. flour.

Cook vegetables (except tomatoes) in the fat until tender. Add tomato and salt, cook 5 minutes. Put through strainer, return to fire, add flour mixed with 2 tablespoonfuls cold water, boil 5 minutes.

### PIMENTO SAUCE

Force canned pimento through a strainer. Add 2 cups of this puree to 1 cup of white sauce.

### BROWN NUT SAUCE

2 tbsp. drippings or vegetable oil,
2 tbsp. peanut butter,
3½ tbsp. flour,
1½ cups meat or vegetable stock or milk,
½ tsp. salt,
Few grains pepper.

Brown the fat, add peanut butter and when well mixed add flour and continue browning. Pour in the stock gradually, stirring constantly. Bring to the boiling point and add salt and pepper.

## TOMATO SAUCE

2 tbsp. veg. fat,
2 tbsp. flour or 1 tbsp. corn starch,
½ pt. strained tomatoes,
1 tsp. onion juice,
½ tsp. salt,
1 spoonful of salt and pepper.

Rub the vegetable fat and flour together; add the water and onion juice; stir until boiling and add the salt and pepper.

U. S. Food Administration.

## CAPER SAUCE

Make a plain white sauce, take from fire and add capers.

## BROWNING OR KITCHEN BOUQUET

This can be purchased at any grocer's or may be made at home. Put 1 cup of sugar in an iron frying pan over the fire, shake and stir until it melts and turns a dark brown and smokes. Add 12 cups water, stir until boiling, add a chopped onion, six whole cloves, 1 teaspoonful salt, saltspoonful black pepper and a dash of Tabasco sauce. Simmer twenty miuutes, strain and bottle for use. This will keep for months.

## BROWN SAUCE

2 tbsp. vegetable fat,
2 tbsp. flour,
½ pt. stock or water,
1 tsp. Kitchen Bouquet or Browning,
½ tsp. salt,
Saltspoonful black pepper.

Rub the vegetable fat and flour together, add the stock or water and stir until boiling. Add the Kitchen Bouquet or Browning, salt and pepper.

## BROWN MUSHROOM SAUCE

1 forty cent can French mushrooms,
2 cups of stock,
2 tbsp. flour,
4 tbsp. butter,
Salt, pepper.

Melt the butter, add the flour and stir until a very dark brown, then gradually add the stock; when this boils up, add the liquor from the mushrooms. Season and simmer twenty minutes. Skim off any fat that may rise to the top; add the mushrooms and simmer 5 minutes longer. Too much cooking toughens the mushrooms. This sauce is to be served with any kind of roasted, broiled or braised meats. It is especially nice with beef.

## Nuts as Meat Substitutes

Nuts vary considerably in composition, some as chestnuts being starchy, others as cocoanut and walnuts being especially rich in fat, while many as almonds, Brazil nuts, butternuts and peanuts are rich in protein and fat.

The protein of nuts as far as known at present has not the value of animal protein. When used with some cheese, milk or meat they make an excellent meat substitute. When used without these they make good meat savers. With the constant tendency toward higher cost of meat and the necessity of shipping meat to our allies and our own soldiers (for they in their exposed life need the blood producing elements of meat) and with the growing knowledge of nut culture we may look for a much larger use of nuts as "meat substitutes."

10c spent for beefsteak will buy about 400 calories with almost 30 gms. protein.

10c spent for peanuts would buy about 1800 calories with 90 gms. protein.

10c spent for peanut butter would buy about 750 calories with 35 gms. of protein.

Thus nuts are plainly a more economical food from standpoint of food value.

Sherman.

### PEANUT CROQUETTES

1 cup mashed potatoes,
¼ cup ground peanuts,
½ tsp. salt,
½ tsp. butter sub.,
Celery salt,
Paprika,
1 egg,
½ tsp. chopped parsley.

Add seasoning, butter and beaten egg to potatoes, also ground peanuts. Shape, roll in crumbs, then egg and crumbs, fry in deep fat. Serve with white sauce or tomato sauce.

Miss J. Crowder,
Domestic Science Instructor, Central High School.

### BAKED OATMEAL AND NUTS

2 cups cooked oatmeal,
1 cup crushed peanuts,
½ cup milk,
1 tsp. vinegar,
½ tsp. pepper,
1½ tsp. salt.

Mix together and bake in a greased pan 15 minutes. This is

enough for five people. Instead of meat, cook this appetizing dish for your family.

U. S. Food Administration.

## BAKED RICE AND PEANUTS

2 cups cooked rice,
½ cup shelled peanuts,
1 cup white sauce.

Butter a casserole or baking pan. Place in a thin layer of cooked rice, then some peanuts, and next, white sauce. Arrange all ingredients in layers, having white sauce on top. Cover with bread crumbs and place in a hot oven for 20 minutes, having the top slightly browned.

Hilda Z. Rollman,
Domestic Science Instructor, Cote Brilliante School.

## PEANUT ROAST

1½ cups shelled peanuts,
1½ cups dried bread crumbs,
Milk to moisten crumbs,
1 tsp. baking powder,
1 egg,
Salt, pepper.

Cover bread crumbs with milk and soak until soft. Chop peanuts fine, mix with baking powder, beat the egg. Mix thoroughly all ingredients, turn into oiled baking pan. Bake 25 minutes in moderate oven. Serve hot with tomato sauce.

## SCALLOPED ONIONS AND PEANUTS

5 medium onions,
¾ cup peanuts,
1 tbsp. fat,
4 cups bread crumbs,
1 cup milk,
1 tbsp. flour,
Salt.

Boil onions, drain and slice, melt fat, add flour, and cook 3 minutes. Add milk and cook till it thickens. Season with salt and pepper. In a greased baking dish, alternate layers of bread crumbs, onions, peanuts and cover with white sauce. Brown in a hot oven. The top layer should be bread crumbs.

Anna Jensen,
Domestic Science Instructor, Central High School,
St. Joseph, Mo.

## WALNUT ROAST

⅓ cup cooked rice,
½ cup bread crumbs,
1 cup ground walnuts,
1 cup solid tomatoes,
1 pt. mashed potatoes,
1 egg,
1 small onion,
½ tsp. salt,
⅛ tsp. pepper,
Parsley.

Anna Jensen,
Domestic Science Instructor, Central High School,
St. Joseph, Mo.

## NUT AND CHEESE LOAF (University of Ill.)

1 cup grated cheese,
1 cup nuts,
1 cup dry bread crumbs,
2 tbsp. water,
1 tsp. salt,
½ tsp. pepper,
2 tbsp. onion,
1 tbsp. oil.

Cook onion in cooking oil and water until tender. Strain into mixture of cheese ground nuts and crumbs. Add seasoning. Bake in a loaf until brown. Garnish with lemon points.

Patriotic Food Show,
St. Louis, Mo.

## NUT SURPRISE

Parboil six medium onions in salt water. Hollow out centers of onions, chop centers and mix with one cup of ground nuts ½ cup bread crumbs and ½ cup standard cream sauce. Fill onions with this mixture, cover with buttered bread crumbs and let brown in oven.

Patriotic Food Show,
St. Louis, Mo.

## Cheese as a Meat Substitute

Cheese is one of the most valuable of meat substitutes. Whole cheese contains about 25 per cent protein and cottage cheese about 20 per cent. U. S. Food Administration urges the larger manufacture and use of cottage cheese, utilizing the skim milk.

Cheese is a concentrated form of food. It is rich in both protein and fat. In combination with starchy food it may be used as a substitute for meat. Experiments have proved that cheese does not ordinarily cause indigestion and neither is it a frequent cause of constipation.

A recent compilation describes no less than 350 varieties of cheese.

Cheese is divided into two main types:

Hard Cheeses: Chedder, Edam, Emmental (or Swiss), Parmesan and Roquefort.

Soft Cheeses: Brie, Camembert, Gorgonzola, Limberg, Neufchatel and Stilton.

### FOOD VALUE AS COMPARED TO MEAT

1 lb. chedder cheese=2,079 calories
1 lb. beef tenderloin=1,290 calories
1.24 oz. of beef=.77 oz. cheese=100 calories
3½ to 5½ oz. raw meat=usual serving.

### COTTAGE CHEESE

Cottage cheese is one of the important meat substitutes, say specialists of the U. S. Department of Agriculture. It contains a larger percentage of protein than most meats and furnishes this material at a lower cost. In every pound of cottage cheese there is about one-fifth of a pound of protein, nearly all of which is digestible. Meats, on the other hand, usually contain less protein and, besides, have a certain waste, such as bone and other inedible material A pound of cottage cheese daily would supply all the protein required by the ordinary adult engaged in a sedentary occupation.

## CHEESE ON TOAST

1 tbsp. butter substitute,
1½ tbsp. flour,
1 tsp. salt,
⅛ tsp. pepper,
1 cup milk,
¾ cup grated cheese,
1 egg.

Mix the dry ingredients. Melt butter and add dry ingredients. Add milk gradually and stir well, cooking for five minutes. Add cheese and cook until dissolved. Add to slightly beaten egg and cook until egg begins to thicken. Serve on hot toast.

Hilda Rollman,
Domestic Science Instructor, Cote Brilliante School.

## COTTAGE CHEESE ON TOAST

1½ cups cottage cheese,
1 cup milk,
1 cup tomato juice,
4 tbsp. flour,
1 egg,
1 tbsp. fat.

Make white sauce of flour, fat, milk and tomato, stir in cottage cheese and beaten egg and serve on toast.

## CHEESE FONDU

1⅓ cups hot milk,
1 tsp. butter substitute,
⅓ lb. of grated cheese,
1⅓ cups soft stale bread crumbs,
4 eggs
½ tsp. salt.

Mix the milk, bread crumbs, salt and cheese, add the yolks thoroughly beaten; into this mixture cut and fold the whites of eggs beaten until stiff. Pour into a buttered baking dish and cook 30 minutes in moderate oven. Serve at once.

The protein value of this dish is equal to that of one and one-eighth pounds of potato and beef; the calculated cost, 22 cents.

## CHEESE CUSTARD

4 eggs,
½ tsp. salt,
⅛ tsp. pepper,
2 cups milk,
½ cup grated cheese.

Beat eggs slightly, add seasoning, cheese and hot milk. Pour into a buttered pudding dish or custard cups and set in a pan of hot water. Bake about one-half hour, or until the handle of a spoon can be run into it and will come out clean.

## 1.—STEAMED CHEESE SOUFFLE

4 tbsp. oleo,
4 tbsp. flour,
1 cup milk,
4 tsp. salt,
¼ tsp. mustard,
3 eggs,
½ lb. cheese cut fine,
3 egg whites.

Melt fat, add flour and stir smooth, then add milk. Cook directly over the fire, stirring constantly, until it boils, for 1 minute. Remove from fire, add condiments, then egg yolks (beaten smooth), the cheese, and lastly cut and fold in the egg whites, beaten stiff, and dry. Smooth the top cover immediately, place the vessel over boiling water and cook without lifting the lid for 30 minutes. This dish should be made either in a double boiler or a chafing dish.

Miss Mary Evans,
Domestic Science Instructor, Yeatman High School.

## ASPARAGUS WITH CHEESE

Drain liquor from one can of asparagus tips, arrange the stalks on squares of toast and pour over a sauce made as follows: Melt two tablespoons of butter substitute, with this blend two tablespoons of flour, add one cup of hot milk and cook until it thickens; season with salt and pepper. Now stir in a half cup of grated cheese. When cheese is melted pour over asparagus.

## BAKED STUFFED CUCUMBERS

Wipe and peel cucumbers, cut in two-inch pieces, crosswise, and remove seeds. Mix four tablespoons of bread crumbs, two tablespoons of finely chopped cooked ham and two tablespoons of grated Parmesan cheese. Moisten with tomato sauce and season with salt and pepper. Put cucumber cups in shallow pan. Fill with mixture, surround with chicken stock, and bake thirty minutes. Remove, cover with buttered crumbs, and bake until crumbs are brown.

## BAKED HOMINY AND CHEESE

1 tbsp. of oleo. or drippings,
1 tbsp. cornstarch or
2 tbsp. of flour,
1 cup milk,
1 tsp. salt,
½ tsp. paprika,
½ to 1 cup cheese, grated or cut fine,
2 cups cooked hominy,
½ cup bread crumbs.

Make a sauce of the fat, cornstarch, salt and milk, add the cheese and paprika to the sauce, arrange the hominy in baking dish and pour the sauce over it. Cover with crumbs and bake 20 minutes in a moderate oven. The hominy and cheese may be arranged in layers and the white sauce poured over it if desired.

### CHEESE AND COWPEA LOAF

2 cups cooked cowpeas, mashed or run through sieve,
½ cup grated cheese,
1 tbsp. butter substitute,
1 tbsp. chopped green pepper,
1 small onion, chopped.

Cook the vegetables in the fat, mix with the peas and form into a loaf. Bake, basting with butter substitute and water. Use as a meat substitute, either hot or cold.

### BOSTON ROAST

1 lb. beans (cooked),
½ lb. cottage cheese,
Bread crumbs,
Salt.

Run beans through food grinder, add cheese and enough crumbs to form a stiff roll. Bake in a moderate oven, baste with butter or some fat. Serve with tomato sauce.

Miss Anthony,
Instructor Domestic Science, Maryville, Mo.

### CORN AND CHEESE

Cook corn, cut from cob,
2 cups corn,
½ cup cheese.

Make as macaroni and cheese, using white sauce No. 4, cayenne pepper. Pimento and cottage cheese with fish, good substitute for meat.

Miss Anthony,
Domestic Science Instructor, State Normal School,
Maryville, Mo.

### 2.—CHEESE SOUFFLE

3 eggs,
1 cup cheese (grated).

Make white sauce, using 2 tbsp. fat, 2 tbsp. flour and one-half cup milk. Add yolks to sauce, add cheese, cool. Add stiffly

beaten egg whites. Pour in buttered baking dish. Set in hot water, bake 10 minutes in moderate oven.

Miss Anthony,
Domestic Science Instructor, State Normal School,
Maryville, Mo.

### CHEESE OMELET

4 eggs,
4 tbsp. cheese, grated,
Salt and pepper to taste,
2 tsp. chopped parsley (may be omitted).

Beat eggs, add other ingredients, turn into hot omelet pan well greased with veg. oil, fold, serve on hot dish.

### NEUFCHATEL CHEESE BALLS

To be served on luncheon plate.

2 Neufchatel cheeeses,
A little cream,
Salt, pepper, red or white,
Ground or chopped pecans.

Mix ingredients, form in balls, roll in the nuts.

### BAKED CHEESE WITH EGG

6 tbsp. cheese (grated),
½ pt. milk,
3 egg yolks,
A little mustard,
2½ tbsp. veg. oil,
Whites of 2 eggs,
3 slices of bread,
Salt and red pepper.

Put milk and bread on to boil, stir, add cheese and fat. Place over fire and stir for one minute; add seasoning and yolks of eggs, also whites beaten stiff, stir gently, pour into greased casserole, bake a light brown.

### CHEESE BALLS

1½ cups of cheese, grated,
¾ cup fine bread crumbs,
1 egg, well beaten,
A few drops of Worcestershire sauce.

Roll into balls one inch in diameter, just before serving drop into hot fat to brown. Serve hot with salads.

### CHEESE STRIPS

1 cup flour,
1 tbsp. Troco or oleo,
¼ cup grated cheese,
½ tsp. baking powder,
½ tsp. salt,
A dash of cayenne.

Mix with water as for biscuits, roll out thin, cut in strips, bake in moderate oven.

## CHEESE STRAWS

1½ lbs. grated cheese,
1 cup white flour,
1 cup white corn meal,
½ cup veg. oil,
1 tsp. salt,
2 tbsp. cream,
Dash of cayenne.

Mix well as for biscuits, make a very stiff dough, roll out to ¼ inch in thickness, cut in strips 4 inches in length, ¾ inch wide, and bake golden brown.

Note: Cheese should be wrapped in a slightly damp cloth or in paraffin paper and then in wrapping paper. It should be kept in a cool place. Never cover cheese in a dish from which the air has been wholly excluded, as it molds more readily.

## COTTAGE CHEESE AND NUT LOAF

1 cup cottage cheese (or grated cheese),
1 cup nut meats,
1 cup stale bread crumbs,
Juice of ½ lemon,
1 tsp. salt,
¼ tsp. pepper,
2 tbsp. chopped onion,
1 tbsp. oleo., meat drippings or table oils.

Mix the cheese, ground nuts, crumbs, lemon juice, salt and pepper. Cook the onion in the fat and little water until tender. Add to the first mixture the onion and sufficient water or meat stock to moisten. Mix well, pour into a baking dish and brown in the oven. Variations: two cups of cooked oatmeal may be substituted for the cheese and bread crumbs. One pound of beans cooked and put through a sieve may be substituted for the nuts. American cheese, grated or cut fine, may be used in place of cottage cheese. The amount of liquid added will vary in each case. The seasoning may be varied to suit the taste.

U. S. Food Administration.

Note: Especial attention must be given to seasoning of dishes which have as their foundation beans, rice or other foods, having little flavor of their own. Use peppers, onion, garlic, catsup, Worcestershire sauce, etc., for increasing flavor. Beans and nut loaves should be served with highly seasoned sauces.

Note: Rinds and bits of cheese may be scalded, dried and ground for use in any dishes requiring cheese.

## Fish as a Meat Substitute

Eat more fish and sea food to save meat, is the request of our Government. The fish products, as estimated by the Bureau of Fisheries, amount to 2,169,000,000 pounds in weight.

Fresh Fish—10 per cent to 14 per cent protein.

Buying of Fish:

1. Find the varieties recommended by the United States Government and ask for them. Insist that your dealer carries them. Look up their food value and the best methods for their preparation.

2. In winter use frozen fish. Frozen foods are best cooked before thawing them. It is becoming a common practice to preserve fruits and vegetables by freezing, but they must be used before thawing if the quality of the food is to be preserved. Frozen fish cooked at once is as delicious as fresh fish, providing the fish was originally fresh.

3. Use fish all the week, so that the demand will be extended and it will be possible to get it on other days than Friday.

4. A large number of perfectly good fish are being wasted each year because there is no demand for them. We are too conservative and cling to the use of certain well-known varieties, while others equally good are not used.

5. If possible, buy local fish, to avoid shipping. This rule does not hold in winter, when it is almost impossible to get river fish.

### POINTS TO BE REMEMBERED IN THE PREPARATION OF FISH

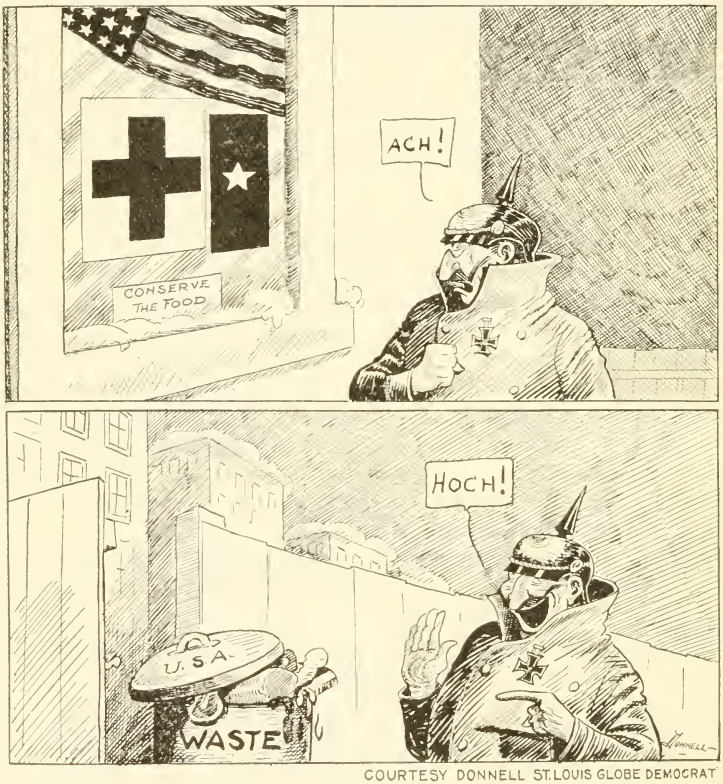
1. Fish is tender; therefore long cooking is not necessary.

2. Flavor should be retained and added.

3. Most fish lack fat; therefore the addition of it is desirable from the standpoint of food value as well as flavor.

A fish to be eatable must be perfectly fresh. Nothing else in the line of food deteriorates so rapidly. Fresh fish may be preserved frozen by the best cold storage process for at least two years, but if once heated and allowed to stand, nothing will bring back the delicious flavor of a fish just caught. Fresh fish will be

BERLIN, JAN. 15,
WHILE PUTTING ON A BOLD FRONT, AMERICA IS SHOWING SIGNS OF WEAKNESS BEHIND THE LINES




COURTESY DONNELL ST. LOUIS GLOBE DEMOCRAT

firm and the skin and scales bright. When a fish looks dim and limp do not buy it. Fish should be washed quickly in only one cold water. Wash whole and cut up for frying after, if fish is to be cut in pieces.

Fish may be baked, broiled, boiled, fried or sauted. Fresh cod, lake trout, red snapper, haddock are good boiled.

## TO BOIL FISH

Pin the fish in a piece of strong white cotton cloth and plunge into boiling salt water, let simmer gently for 30 minutes, longer or shorter time according to size of fish. Boiled fish may be served with a great variety of sauces.

## BOUILLON

If fish is boiled in the following bouillon it will add greatly to its flavor.

4 qts. of water,
1 onion,
1 slice of carrot,
2 cloves,
2 tbsp. salt,
1 tsp. pepper,
1 tbsp. vinegar,
Juice ½ lemon,
Some herb may be used.

Tie all spices in muslin bag. Cook all together, simmering slowly for one hour. Put in the fish and cook as directed for one hour.

## BAKED FISH

Make a dressing of rolled crackers (fine), salt, pepper and chopped parsley, a small quantity of chopped salt pork (or butter substitute will do).

After fish has been carefully cleansed, rub well with salt, put in dressing and sew up the fish. Cut gashes in the sides of fish about 1 inch deep and 2 inches long. Fill gashes with strips of fat salt pork. Now put the fish into the baking pan, dredge well with flour, salt and pepper, cover the bottom of the pan with water and put into moderate oven. A five-pound fish should bake in about one hour. The fish should be basted about every 15 minutes. Water must be renewed often as only the bottom of pan should be kept covered. Do not allow the pan to burn. When done carefully slip the fish into center of hot platter, pour over

any kind of sauce desired, garnish and serve. It is well to place fish on tin sheet before putting in baking dish; it will then slip easily onto platter without breaking.

## SAUTED FISH

All small fish like brook trout, smelts, perch, cat, are best fried.

When thoroughly cleaned they should be rolled in a mixture of flour and Indian meal, thoroughly mixed, salted and peppered. Fry brown on one side in shallow vegetable fat or salt pork drippings, turn carefully, brown and serve on hot platter. Sliced fish may be fried in the same manner. Do not burn the fish.

## CREAMED COD FISH

Buy the large white, boneless steaks of cod, break into small pieces, let stand ½ hour in water, drain.

Make cream sauce, 2 to 1.

Add fish, let stand over very slow fire until heated through, do not boil after fish is added. A beaten egg makes the dish richer.

1 cup cod fish,
1½ cup cream sauce (2 to 1),
1 egg.

## COD FISH BALLS

2 pts. raw potatoes,
1 pound cod fish,
Salt,
Pepper,
1 tbsp. veg. fat.

Boil cod fish picked in pieces with potatoes until latter are done, mash, beat, add beaten eggs, salt, pepper and fry light brown in vegetable oil or butter substitute.

## BAKED SALT FISH

2 cups salt (flaked),
2 cups cold mashed potatoes,
1 pt. milk,
2 eggs,
2 to 3 tbsp. of drippings.

Soak the flaked fish in cold water over night. Freshen the fish by boiling up several times in fresh water (usually three times is sufficient). Then simmer until tender. Drain off the water, mix the potatoes with the milk, eggs, fat and seasoning. Add the fish, turn into a greased baking dish and bake one-half hour.

U. S. Food Administration.

## SALMON CROQUETTES

Other fish may be substituted.

1½ cups thick rich cream sauce,
1 small can good brand salmon,
1 tsp. onion juice or finely chopped onion,
¼ tsp. pepper,
1 tbsp. parsley.

Remove bones, skin and oil from salmon, mix salmon into cream sauce, add other ingredients, shape into balls, dip in egg and fine cracker crumbs and fry in hot fat a light brown. Serve with sauce.

## SALMON LOAF

Mince a can of salmon; add one cup stale bread crumbs, two beaten eggs and ½ cup milk. Season to taste with salt, pepper, parsley and lemon juice. Put in a buttered mold and steam or bake for thirty minutes. Turn from mold and serve hot with white or Hollandaise sauce. Remnants of a baked fish and its stuffing may be used in place of the salmon and bread crumbs.

May Secrist,
H. E. Dept., Cal. Polytechnic.

## SALMON AND MASHED POTATOES

1 can of salmon,
2 cups of mashed potatoes,
Onion,
Pepper—salt to taste.

Mix all and form in cakes and fry. Serve hot.

C. L. Bruno,
Wellston.

## HOMINY AND FISH LOAF

1 cup hominy grits,
2 cups water,
2 cups skimmed milk,
1 tsp. salt.

Cook the hominy, milk, water and salt in a double boiler for 6 hours. Serve as a vegetable or cereal. For the second day line and oil bowl with the cold hominy, fill the center with flaked salmon, cover with hominy and steam for one hour. Turn onto a hot platter and serve with a sauce made from the liquor that was in the salmon as a base.

Miss Mary Evans,
Domestic Science Instructor, Yeatman High School.

## BAKED TUNA FISH

1 can Tuna fish, No. 2,
6-10 crackers,
1½ cups cream sauce, thick,
½ cup fine bread or cracker crumbs.

Break up Tuna fish with fork, butter baking dish or casserole. Alternate the layers of fish, cream sauce and crackers, put small bits of butter substitute and fine crumbs on top. Juice of lemon may be used over all if desired. Serve with baked potatoes and a relish.

Tuna fish has been called the chicken of the sea.

## HALLENDEN HALIBUT

Arrange 6 slices salt pork or bacon, 2½ inches square, and a bay leaf. Place on this 2 pounds sliced halibut. Cover with 3 tablespoonfuls oil or butter substitute, creamed and mixed with 3 tablespoonfuls flour. Cover with oiled bread crumbs and lard with thin strips of salted pork. Cover with oiled paper and bake in moderate oven 50 minutes. Remove the paper last 15 minutes, garnish with lemon and chopped parsley.

## PLANKED WHITEFISH (Whitefish or Shad Preferred)

Select a 1 to 2-pound fish. It should be cleaned by opening down the front. Start at the tail end and loosen the backbone by running the finger or a sharp knife underneath. Break off where it joins the tail fin. Follow the bone up, loosening as you go. Most of the bones will come out with the backbone. Any small bones that are left may be picked out later.

Soak a plank well to prevent burning. Lay fish on plank skin side down and place either in main part of oven or in the broiler until tender and slightly browned. Serve with Maitre d'Hotel butter.

## BAKED SPANISH MACKEREL

Clean and wash well. Fill with a stuffing prepared from the following ingredients: 2 cups bread crumbs, ¼ cup corn oil, a small onion sliced, ½ teaspoonful of sage, chopped celery and parsley. Lay in pan, cover witth strips of salt pork and bake 20 to 30 minutes. Any other fish may be prepared in this same way.

## BROILED EULACHON

Dress without splitting and wipe dry. Score across the back, broil slowly over a clear fire, turning once. No fat need be used. Serve on a hot platter with a seasoning of salt, pepper and lemon juice.

Broiled fresh whiting, prepared in same way as the Eulachon.

## BAKED SABLE FISH

Cut fish in slices about an inch thick. Have a hot baking pan ready with just enough fat to prevent the fish from sticking. Dip the fish steak in a mixture of one egg and two tablespoonfuls of milk. (The soaked fried egg may be used for this.) Place in baking pan and put in moderate oven until both sides are browned. This is a very acceptable substitute for fried fish. Serve with lemon.

## CORN MEAL FISH BALLS

2 cups cold white corn meal mush,
1 cup shredded codfish,
1 egg,
1 tbsp. butter.

Pick over the codfish and soak it to remove salt if necessary. Combine the ingredients and drop by spoonfuls into hot fat. Drain on porous paper. These codfish balls compare very favorably in taste with those made with potatoes and are prepared more easily and quickly. The mush must be as dry as possible. This make 12 fish balls.

Farmers' Bulletin 565.

## JELLIED FISH

1½ cups flaked fish,
2 tbsp. chopped capers,
1 tbsp. gran. gelatine,
1 cup boiling water,
2 tbsp. lemon juice,
¼ tsp. salt,
2 tbsp. cold water.

Mix the fish and capers. Arrange in a mold. Soak the gelatine in two tablespoonfuls of cold water. Add the boiling water and stir until the gelatine dissolves, then add the lemon juice and salt. Pour this jelly carefully over the fish and set in a cool place to harden. Cut into portions and serve on lettuce with salad dressing. If desired celery to hard boiled eggs cut in slices may be added to the fish.

U. S. Food Administration.

## CREOLE TOMATOES

Wipe six medium-sized tomatoes, remove a slice from the top of each, scoop out some of the pulp, sprinkle insides with salt, invert and let stand one hour. Melt one and one-half tablespoonfuls of vegetable fat, add one tablespoonful of flour and stir until well blended; then pour on gradually, while stirring constantly, ½ cupful of milk. Bring to the boiling point and add one cup of crab meat, one tablespoonful of green pepper (from which the seeds have been removed) finely chopped, ½ teaspoonful of salt, ¼ teaspoonful of paprika, and a few grains of pepper. Fill tomatoes with mixture, sprinkle tops with coarse, buttered bread crumbs, put in buttered pan and bake in a moderate oven 15 or 20 minutes.

## CREAMED TUNA FISH

A nice breakfast or luncheon dish. Try Tuna fish salad (sea chicken salad), substituting Tuna for chicken.

1 can Tuna fish, broken into pieces with silver fork),
1 cup cream sauce,
A little parsley.

Add broken fish to hot cream sauce; do not cook but let stand on slow fire until very hot. Serve on squares of buttered toast.

## FINNAN HADDIE (Smoked)

Remove skin carefully.

Let fish come to boiling point in clear water; remove to tin shallow baking pan, cover with bits of butter substitute, dredge with flour, pour over 1 pint of cream. Place in the broiler of gas stove, let it brown slightly, serve on hot platter. This makes a nice meal when served with baked potatoes.

## BROILED SALT MACKEREL

Freshen the fish by soaking 10 to 12 hours with the skin side up. Change the water several times. Simmer until tender (15 to 20 minutes) in water to which 1 teaspoonful vinegar, a bay leaf, one slice of onion and a sprig of parsley have been added. Drain, rub the fish with a little salt and margarine or other fat; grease the hot broiler and lay the fish on it. Brown on both sides quickly, garnish with slices of lemon and parsley.

## OYSTERS, FRIED

2 doz. large oysters,
2 tbsp. fat, butter or veg. fat,
4 tbsp. fine cracker crumbs,
Salt, pepper.

Heat fat, stir in the flour, put in oysters, then boil up once, add the hot cream and pour over toast.

## OYSTER PATTIES

2 tbsp. fat (veg. oil),
2 heaping tbsp. flour,
1 pt. cream,
1 pt. liquor from oysters,
1 qt. small oysters (drained).

Make cream sauce of fat, flour, liquor, cream, salt, pepper; put in the oysters and let come to a boil or until edges of oysters curl. Make shells of rich paste, fill and cover with rounds of same paste, set in oven a few minutes, serve on hot plates.

## SCALLOPED OYSTERS

1 can corn,
1 pt. oysters,
1 cup liquor from oysters or milk,
1 tbsp. veg. oil,
1 tbsp. flour,
½ tsp. salt,
¼ tsp. pepper.

Melt butter, add flour, salt and pepper, mix until smooth, add warm liquor, cook until slightly thickened.

Put corn and oysters in two layers in large baking dish, add sauce. Sprinkle top with crumbs, bake 30 to 45 minutes in moderate oven.

Miss Mary Sherzer,
St. Louis Public Schools.

## OYSTER COCKTAIL

24 small raw oysters,
3 tbsp. tomato catsup,
1½ tbsp. lemon juice or vinegar,
6 drops of Tabasco sauce,
¼ tsp. salt,
3 tsp. chopped celery,
1½ tsp. Worcestershire sauce,
3 tsp. grated horse-radish.

Mix all the ingredients except oysters and chill thoroughly. Place oysters on cracked ice in cocktail glasses, and just before serving add the sauce.

### DEVILED CRABS

1 cup chopped crabs,
¼ cup mushrooms finely chopped,
2 tbsp. veg. oil,
2 tbsp. flour,
⅔ cup white stock,
Yolks 2 eggs,
1 tsp. chopped parsley,
Salt and pepper.

Make a sauce of vegetable oil, flour and stock; add yolks of eggs, seasonings (except parsley), crab meat and mushrooms; cook 3 minutes, add parsley and cool mixture. Wash and trim crab shells, fill rounding with mixture, sprinkle with bread crumbs mixed with small quantity of vegetable oil. Grease on top with a case knife, having three lines parallel with each other across the shell and three short lines branching from outside parallel lines. Brown crumbs and serve hot with a sauce.

Elizabeth Walker,
Domestic Science Instructor, University City, Mo.

## SAUCES

### MAITRE D'HOTEL BUTTER

¼ cup butter substitute,
½ tsp. salt,
⅓ tsp. pepper,
½ tsp. finely chopped parsley,
¾ tsp. lemon juice.

Cream in a bowl with small wooden spoon. Add salt, pepper and parsley, then lemon juice very slowly.

### HOLLANDAISE SAUCE

½ cup veg. oil,
2 eggs (yolks only),
1 tbsp. lemon juice,
½ tsp. salt,
A few grains cayenne pepper,
⅓ cup boiling water.

Put ⅓ vegetable oil in a sauce pan with the yolks of the eggs and lemon juice. Place over hot water and stir constantly. Add slowly as it thickens the last of the vegetable oil; add the water and cook one minute. Season with salt and cayenne.

### DRAWN BUTTER SAUCE

Mix to a smooth paste two tablespoonfuls of butter substitute, and one of flour; put bowl in pan of boiling water on the fire, adding gradually ½ pint of boiling water or stock; stir until it thickens, add ½ teaspoonful of salt, cook until flour is done and smooth; if it is to be used for fish put in chopped eggs and capers. If wanted acid, use a little venegar or lemon juice.

## SAUCES

### REURRE NOIR

Two tablespoonfuls of butter substitute, one of vinegar, one of chopped parsley, one teaspoonful of lemon juice, ½ teaspoonful of salt, ¼ quarter of a teaspoonful of pepper. Put the butter substitute in the frying pan and when very hot add the parsley and then the other ingredients. Boil up once. This sauce is for fried and broiled fish, and it is poured over the fish before sending to the table.

### AURORA SAUCE

Aurora sauce for fish is prepared by adding to 1 pint of thick tomato sauce ½ of a cup of chopped canned mushrooms, two tablespoonfuls of mushroom liquor, and one tablespoonful of butter substitute cut into bits and stirring until the butter substitute is absorbed.

## Poultry as a Meat Substitute

"Eat poultry; it does not make army rations."

U. S. Food Administration.

Poultry (unless frozen) deteriorates very rapidly and so must be eaten near the place of production.

### STUFFING FOR FOWLS

3 cups of cornbread crumbs,
1 cup Liberty bread crumbs,
1 onion minced,
1 tbsp. chopped parsley,
½ cup chopped celery,
½ cup fat from the fowl,
2 tsp. sage—enough stock or milk to mix to the right consistency.

Melt or fry out fat to mix with the crumbs, add seasoning and liquid to bring to the right consistency.

### POTATO STUFFING

2 cups hot mashed potatoes,
1¼ cups bread crumbs,
1 tsp. sage,
1 chopped onion,
3 tbsp. fat from fowl,
1 egg,
1½ tsp. salt.

Clean and stuff fowl, place in roasting pan in moderate oven. Bake until tender and a knife inserted at the joint will show that it may be easily separated. For a tougher fowl, place in fireless cooker 4 hours or over night, then stuff and brown in oven.

### ROAST CHICKEN OR OTHER FOWL

Dress, clean, stuff and truss a fowl, lay on back on rack of roasting pan. Rub breast well with fat (salt pork in strips may be used) after the war, put into oven until it begins to brown, lower temperature and cook until tender, about 3 or 4 hours.

### SAUTED FRIED CHICKEN

Cut up young chicken, season with salt and pepper, dredge with flour, brown on both sides in generous quantity of vegetable fat, add a bit of water, cover tightly and steam 30 minutes.

### MARYLAND CHICKEN

Dress, clean, and cut up fowl, sprinkle with salt and pepper, dip in

egg and fine bread crumbs, place in well-oiled roaster and bake until tender in hot oven; baste after first 5 minutes with melted fat or cream. Prepare either brown or cream sauce with dripping in pan and serve with chicken.

## JELLIED CHICKEN

1 chicken cooked until tender,
4 hard cooked eggs,
2 tbsp. gelatine,
Olives or pickles,
Celery or celery salt,
Salt and pepper.

Reduce the liquor in which the chicken was cooked to 1 pint, add the diced or minced chicken, sliced eggs, the celery salt and pepper and pickles and olives, add the gelatine soaked in ½ cup of cold water and dissolved over hot water. Put into wet molds and chill thoroughly. The jelly and the food may be added one layer at a time, arranging the food in a design if desired.

## CHICKEN PIE

Dress, clean and cut up a plump fowl, put in a stew pan with one onion, salt and pepper, add boiling water to cover. Let simmer until done, remove the chicken, strain the stock, skim off the fat and thicken with a paste of flour and water. Invert a small cup in the center of baking dish, dispose the chicken about it after having removed some of the larger bones. Add bits of butter and the thickened gravy. Cover with a baking powder biscuit crust ½ inch thick in which incisions have been made to allow the escape of steam. Bake until the crust is well done and nicely browned.

## CHICKEN AND CORN MEAL CROQUETTES

1 cup white corn meal mush,
1 cup chopped chicken,
1 egg,
Salt and pepper,
Few drops of onion juice.

Combine the ingredients and drop by spoonfuls into hot fat. White corn meal may be combined very satisfactorily with other kinds of cold meat to make croquettes. In general, corn meal croquettes need not be egged and crumbed like ordinary croquettes, for the hardening of the corn meal on the surface of the mixture forms the necessary crust. This serves three people.

Farmers' Bulletin 565.

# Meat Sparers

## USE SAVORY STEWS AND MEAT PIES

Do you know how good they are? They may be so varied that you can have a different one every day in the week, and all of them delicious. It needs only a small piece of meat to give flavor to a hearty dish.

Don't think that you must eat a lot of meat to be strong. Meat is good to help build up the body, but so are many other foods.

In these dishes, part of your building material comes from the more expensive meat and part from the cheaper peas, beans, hominy and barley. The little meat with the vegetables and cereals will give your body what it needs.

U. S. Food Administration.

### TAMALE PIE

Another good way to use a little meat. Have you ever used rice, corn meal mush, or hominy for a crust? This is less work than a pastry crust and saves wheat.

4 cups cooked corn meal, rice, or hominy,
1 onion,
2 cups tomato,
⅛ tsp. pepper,
1 tbsp. fat,
1 pound raw meat or left over meat cut up small.

Melt the fat, add the sliced onion, and, if raw meat is used, add it, and place over fire until red color disappears. Add the tomato and seasoning. If cooked meat is used, add it with the tomato and seasoning after the onion is browned, and heat through. Grease a baking dish, put in a layer of the cereal, add the meat and gravy, and cover with the cereal, dotted with fat. Bake for half hour.

### SHEPHERD'S PIE

This is the name of a meat pie with a mashed potato crust browned in the oven.

## HOT POT OF MUTTON AND BARLEY

1 pound mutton,
½ cup pearled barley,
1 tbsp. salt,
4 potatoes,
3 onions,
Celery tops or other seasoning herbs.

Cut the mutton in small pieces, and brown with the onion in fat cut from meat. This will help the meat tender and improves the flavor. Pour this into a covered sauce pan. Add 2 quarts water and the barley. Simmer for 1½ hours. Then add the potatoes cut in quarters, seasoning, and cook one-half hour longer.

## SCRAPPLE

2 lbs. (meat) pork, game, poultry, etc.,
½ lb. liver (beef or pork).

Cook together till very tender, remove from liquor and grind. To liquor add enough water to make 2 quarts, make corn meal mush with those 2 quarts, using about 2 cups of meal (must be rather thick). When done, add ground meat, salt, pepper, sage, allspice to taste. Pour into greased mold. In frying be sure to have pan thoroughly heated. Slice pieces from the mold and fry.

Mrs. F. W. Shipley.

## SPAGHETTI A L'ITALIENNE

An excellent dish containing all the food elements necessary for substantial meal may be varied. Use left over gravy, bits of meat of any kind, rice or vegetables, always using common sense (the best ingredients) in cooking.

1 cup grated cheese,
½ can tomatoes,
1 large onion,
2 tbsp. Mazola or veg. oil,
½ bay leaf,
1 tsp. salt,
½ tsp. pepper,
¼ lb. ground beef,
1 cup hot water or milk,
Bit of parsley.

Cook spaghetti 30 minutes, cut onion fine, fry in the oil till golden brown, add tomatoes and all other ingredients except cheese. Let simmer slowly for 30 minutes or while spaghetti is cooking; have baking dish ready. Place alternate portions of spaghetti, sauce and cheese, cover with bread crumbs and bake 15 minutes.

## SPAGHETTI, CHEESE AND MUSHROOMS

1 box spaghetti,
1 can tomatoes,
1 can mushrooms,
1 small onion,
3 tbsp. butter,
Salt, pepper to season highly,
¼ lb. cheese,
1 egg,
Paprika.

Boil spaghetti ¾ of an hour, cut onion and brown in 1 tablespoonful butter, cut mushrooms into pieces or purchase the broken mushrooms, which are cheaper. Beat egg well and mix all ingredients, turn into two baking dishes and bake until mixture becomes rather thick (about 1½-2 hours). This makes an amount sufficient for several meals, but it keeps well and gets better as it is reheated.

Elizabeth Mount Walker,
Domestic Science Instructor, University City.

## POTATOES AU GRATIN

Cream sauce No. 2 (butter sub. used),
Potatoes sliced (raw),
Cheese (grated).

Put ingredients into baking dish in alternate layers with bread or cracker crumbs on top. Bake 30 minutes. For six people.

## CASSEROLE OF RICE AND MEAT

1 cup cooked rice,
2 cups cooked meat,
Spk. cayenne,
¼ tsp. celery salt,
Few drops onion juice,
1 tsp. chopped green peppers,
¼ cup crumbs,
1 tsp. lemon juice,
1 egg,
1 tsp. salt,
¼ tsp. pepper,
¼ cup tomato juice.

Chop the meat fine and add the other ingredients, except the rice, mixing well. Line a casserole or individual ramekin with rice. Add meat mixture. Bake 20 minutes, serve hot with tomato sauce. This may be steamed in a mold 30 to 45 minutes and turned onto a platter to serve.

## JELLIED MEAT LOAF

2 cups cooked meat,
1 cup stock,
1 tbsp. catsup,
1 bay leaf,
2 cloves,
½ tsp. celery salt,
Spk. salt,
Spk. pepper.

Add seasonings to stock and bring to boiling point, swell gelatine

in cold water, and dissolve in hot stock. Strain, add meat and mold, serve garnished with hard cooked eggs.

### STUFFED MUSHROOMS A LA BRADFORD

Select a dozen large mushrooms, peel them and remove the stems. Make a forcemeat from the following ingredients: Use the mushroom stems and three whole mushrooms. Chop fine and saute in butter for three minutes. Add one-half cup of bread crumbs which have been moistened with chicken stock. Season with salt, pepper and 1 tbsp. of tomato catsup. Fill the large mushrooms with this mixture. Crumb, and bake about fifteen minutes. Serve on toast surrounded by a brown sauce, flavored with sherry.

### BEEF STEW

1 lb. beef,
4 potatoes,
1 tsp. salt,
¼ peck green peas or 1 can,
1 cup carrots cut up small.

Cut meat in small pieces and brown in the fat from the meat. Simmer in 2 quarts of water for 1 hour. Add the peas and carrots and cook for one-half hour, then add the potatoes. If canned peas are used add them 10 minutes before serving. Serve when potatoes are done.

Variations.—1. The meat.—This may be any kind and more or less than a pound may be used. Use the cheap cuts, the flank, rump, neck or brisket. The long, slow cooking makes them tender; game and poultry are good.

2. Potatoes and barley may be used or barley alone or rice, hominy or macaroni.

3. Vegetables—carrots, turnips, onions, peas, beans, cabbage, tomatoes are good canned or fresh. Use one or more of these as you wish.

4. Parsley, celery tops, onion tops, seasoning herbs or chopped sweet peppers add to the flavor.

5. Many left-overs may be used, not only meat and vegetables, but rice or hominy.

U. S. Food Administration.

The fireless cooker may well be used, the meat and the vegetables being put in at the same time. Left-overs or canned vegetables need only to be heated through. Add them 15 minutes before serving.

## SWEETBREADS EN CREME

Put sweetbreads in bowl, cover with cold water, let stand an hour, drain, remove the fat and membranes. Cook in boiling acidulated water 20 minutes, allowing ½ tsp. each of salt and vinegar to a pair of sweetbreads, then drain again and plunge into cold water. Cut parboiled sweetbreads in ½-inch cubes, to ⅓ cup cubes add ¼ cup white sauce.

## BROILED SWEETBREADS

After parboiling as above, split crosswise. Season with salt and pepper and broil eight minutes. Serve with lemon, butter made by creaming 4 tbsp. oil, and adding slowly 2 tbsp. of lemon.

## STUFFED HEART

Remove veins and arteries. Wash carefully, simmer for 1 hour. Stuff, sprinkle with salt and pepper (1 tbsp. of salt to 1 pound; pepper to taste), dredge with flour, bake in stock in which it was stewed, thicken liquid with corn starch to the thickness of sauce for creamed dishes, and serve hot.

## BOILED TONGUE

1 tongue,
4 cloves,
4 pepper corns,
1 tbsp. vinegar,
1 tbsp. salt,
½ tsp. pepper.

Wipe the tongue and place in boiling water to which the seasoning has been added. Boil for 10 minutes, then draw to a cooler part of the range and simmer until tender, ¾ hours, partially cool in the liquid; take the tongue from the water and remove the skin and roots. If pickled tongue is used and is very salty, it should be soaked in cold water several hours or over night before cooking.

## ASPEC JELLY

2 cups white or brown stock,
1 tbsp. gelatine,
½ cup cold water,
Bay leaf,
Worcestershire sauce,
Lemon juice,
Salt,
Pepper,
Celery salt.

(If the stock does not form a soft jelly itself when cold, use 1½ tbsp. of gelatine.)

Soak gelatine in cold water and dissolve over boiling water.

Put seasoning to taste into stock and heat together, clarify, stir in dissolved gelatine and strain. Mold and decorate with meat and vegetables as desired.

## TONGUE IN ASPEC

1 cup diced tongue,
1½ cups liquid aspec jelly,
1 hard cooked egg and pimento or parsley for decoration.

Prepare according to directions for decorating gelatine molds, add tongue. Let stand until firm and molded.

## BRAISED TONGUE

1 beef tongue,
⅓ cup carrots, diced,
1 sprig parsley,
⅓ cup onion, diced,
¼ cup celery, diced.

Place tongue in fireless cooker vessel and heat to boiling. Place in fireless cooker with hot plate. Leave two to three hours. Take out and remove skin and roots. Place back in fireless cooker pan and surround with vegetables. Add four cups of sauce made according to the next recipe. Cover closely, reheat stone and return to fireless cooker. Bake two to three hours longer.

## SAUCE FOR BRAISED TONGUE

Melt one-fourth cup oleo, add one-fourth cup corn flour and stir together until well browned. Add gradually four cups of hot water in which the tongue was cooked. Season with salt, pepper and one teaspoon Worcestershire sauce. One and one-half cups strained tomatoes may be substituted for part of the water.

## SAUTED LIVER

Cut liver in slices ½ inch thick and cover with boiling water, let stand 5 minutes to draw out the blood, drain, wipe and remove outer skin and veins, sprinkle with salt and pepper, dredge with flour and saute in bacon fat (if you have it).

Note: Make gravies to conserve food values of the extractives and fats from meats.

Note: Nourishing soups can be made from scraps of meat from vegetables that are usually thrown away.

# Soups That Save

### An Overlooked Economy

Many housekeepers throw away the water in which vegetables have been boiled, unmindful of the fact that somewhat less than a third of the contained mineral matter and about the same amount of starchy and protein substances are dissolved out into this water, which may well be utilized for soup. For instance, the water in which cabbage has been cooked requires only the addition of a little milk, butter and thickening to furnish an agreeable thin soup.

In this connection it may be noted that much nutriment is also lost in the water in which vegetables are soaked in order to restore them to freshness, an excellent reason why wilted products should not be bought, and for the same reason vegetables should be covered with boiling water, not tepid, and the cooking started without delay. While such vegetables are thought to taste better if cooked in a large amount of water, they should be just scalded or parboiled, this water thrown away, and the cooking concluded in a small quantity of water or by steaming.

Since one of the great ends of cooking is the production of flavor, we should place high in our list those cheapest of all flavors which result from browning. Toasted bread or croutons is a favorite addition to soups, but many housekeepers do not seem to know that toasting or parching gives a new flavor to rice, or if applied to the highly flavored vegetables used to season soups, results in new and delicious flavoring substances as carmelized onion, carrot, celery, green pepper, etc.

Cream soups are in place only at luncheon or at supper because they are so heavy that they partly satisfy the appetite. To this end they should be recognized as having actual food value, while the clear soup that appears at dinner is used more as a stimulant to the appetite. A cream soup is always bland in taste and should be followed by some strong flavored dish of firm texture. Creamed chicken is too similar to harmonize with cream soup; croquettes or salads would give a better effect. Cream soups are in place at dinners if used as a meat substitute.

## SOUP MADE FROM LEFT-OVERS

Put bones and pea pods in water and boil until all of the flavor has come out into the water, remove bones and water. Put through meat grinder any small amount of left over food which does not contain bananas or is very sweet. Add to the above stock, cook thoroughly, strain and season.

## CORRECT PROPORTIONS FOR A WHITE SAUCE FOR SOUPS

1 tbsp. fat, 1 tbsp. flour.
1 cup milk or soup stock,

Soups can be thickened with stale bread, which makes it possible to utilize still another food, sometimes thrown away. Half a slice of bread, or about ¼ ounce of bread, is enough to thicken one cup of soup.

## THE FOLLOWING IS A TYPICAL RECIPE

1 head lettuce, 1 large slice stale bread,
1 small sliced onion, Veg. fat if desired,
2 qts. skim milk, Salt and pepper.

Put the lettuce and onion through the meat chopper with the bread to save the juice. Put into a double boiler with the skim milk and cook until the lettuce is soft. Add fat (if desired) and the salt and pepper.

U. S. Bulletin 871.

## CREAM OF CHEESE SOUP

Put three pints of milk into a sauce pan, add ¼ pound of grated cheese, salt, pepper and paprika to taste. Add one heaping tablespoonful flour to the cheese mixture and stir until smooth and thick. Beat the yolks of three eggs with a little of the soup mixture and then add the rest of the soup. A thin slice of green pepper may be added to each plate.

## PEANUT SOUP

In the upper part of a double boiler put ¼ cup ground peanuts, ¼ cup dried bread crumbs or 2 tablespoonfuls flour, 2½ cups skim milk, or 1¼ cups vegetable soup stock and 1¼ cups skim milk. Cook over hot water one-half hour, season with salt, pepper and onion juice if wished. Always beat a cream soup well before serving.

## MEATLESS VEGETABLE SOUP

**Fresh Vegetables**

⅓ cup carrots,
⅓ cup turnips,
½ cup celery,
1½ cups potatoes, or ¼ cup cereal,
½ onion,
1 qt. water,
4 tbsp. fat,
½ tsp. finely chopped parsley,
Salt and pepper.

Wash and cut up into small pieces, without peeling, carrots, turnips, celery and potatoes. Measure. Place fat in sauce pan, add carrots, turnips, celery and onion; cook ten minutes, stirring constantly. Add potatoes (or cereal) and water, boil gently until vegetables are very tender. Beat with fork or spoon to break vegetables. Add parsley and season.

## 1.—LENTIL SOUP

1 cup lentils,
2 pts. milk,
1 tbsp. of butter,
2 tbsp. cornstarch,
Seasoning of salt,
Pepper.

Wash the lentils, cover them with cold water and soak over night. Bring them to boiling point and boil until they mash easily. Drain and put them into a sauce pan. Add gradually the milk, butter, seasoning of salt and pepper, and the cornstarch moistened with half a cup of water or milk. Stir till it boils up, when it is ready for serving.

## 2.—LENTIL SOUP

Soak the dry lentils over night, pour off water, put on stove with enough water or milk to make a desired quantity of soup. When nearly done add butter in which a little flour has been browned, and let it all boil about 10 minutes. Season to taste and serve with small cubes of roasted stale bread.

Miss Ella D. Rode,
Domestic Science Instructor, Patrick Henry School.

## PEA SOUP

½ lb. split peas,
1 onion,
1 stack celery,
1 small carrot,
1 small turnip,
½ tbsp. butter or dripping,
A little dried mint,
1 qt. stock,
Seasoning of salt and pepper,
3 thin slices of bacon.

Soak the peas in cold water for several hours; melt the butter or drippings in a sauce pan, drain the peas and put them into the

pan with the onion and the vegetables cut into small pieces; stir over the fire for 5 minutes, taking care that they do not brown, then add the stock, and season with salt and pepper. Boil up gently and skim well; let it simmer slowly until the peas are tender, rub the soup through a sieve and add the bacon, previously fried and cut into small dice. Reheat, add the mint and serve.

## SOY BEAN SOUP

1 cup cooked soy beans, rubbed through a sieve,
1 qt. water,
4 tbsp. flour,
2 tbsp. butter or butter sub.,
1 chopped onion,
½ cup tomato catsup.

Melt the butter and add the onion. Stir in the flour and add the water. When thickened add the bean pulp. If the catsup is used it may be added just before serving.

## FOR CREAMED SOUP SEE WHITE SAUCE

## SCOTCH SOUP

With bread and dessert it is enough for lunch or supper.

2½ qts. water,
1½ cups rolled oats,
5 potatoes cut in small pieces,
2 onions, sliced,
2 tbsp. flour,
2 tbsp. fat.

Boil the water and add the oatmeal, potatoes, onion, ½ tablespoonful salt and ½ teaspoonful pepper. Cook for one-half hour. Brown flour with the fat (vegetable oil) and add to the soup. Cook until thick. One cup of tomato adds to the flavor. Serves five people.

U. S. Food Administration.

## LIMA BEAN CHOWDER

¼ lb. salt pork,
1 onion,
1 green pepper,
3 cups skim milk,
1 pt. or ½ lb. green shelled lima beans,
4 small potatoes,
Salt and pepper.

Put the pork, onion and pepper through the grinder. Cook carefully for 2 or 3 minutes, being careful not to burn; add either the beans or the potatoes with water enough to cover and cook until the vegetables are soft. Cook the other vegetables separately and when soft add with the milk to the other mixture. Reheat and season.

The protein in the above dish is equal to that in about three-fourths pound of beef of average composition. Any vegetables may be used in place of the beans.

Farmers' Bulletin 871.

## CREAM OF VEGETABLE SOUPS

Cream vegetable soups are nutritious and are a palatable dish to serve for luncheon or supper. Great care should be used in combining acid vegetables, such as tomatoes with milk, as the milk may curdle and spoil the texture of the dish. A very small quantity of soda added to the puree (strained vegetable pulp) will neutralize the acid, and then it may be added to the milk.

**General Directions.**

Cook vegetables until soft, strain the vegetables and keep the stock in which they are cooked. Make a thin white sauce, using 1 tablespoonful butter, 1 tablespoonful flour, ½ teaspoonful salt and ⅛ teaspoonful pepper to 1 cup liquid (milk or stock or part of each), add the strained vegetable (puree) to the white sauce, then reheat and serve at once. Onion or other seasoning vegetables may be used.

## TOMATO BISQUE

Equal quantities of thin white sauce and tomato puree.

## FISH CHOWDER

A 3-lb. fish,
4 tbsp. drippings,
1 medium onion chopped fine,
1 qt. sliced potatoes,
3 cups hot milk.

Skin and bone the fish, and cut into inch cubes. Cover the bone and trimmings with cold water and let simmer for one-half hour. Cook the onion in the fat for 5 minutes, then pour into a stew pan. Parboil the sliced potatoes for 5 minutes, then drain and add layers of fish and potatoes to the fat and onion in the stew pan. Season each layer with salt and pepper. Strain the liquor in which the fish bones have been cooking over all and cook about 20 minutes until fish and potatoes are tender. Then add the scalded milk. If desired thicker, sprinkle a little corn meal between each layer of fish and potatoes.

U. S. Food Administration.

## OYSTER SOUP

Heat the strained liquor from one quart of oysters. In another vessel heat one quart of milk, ¼ cup butter substitute, a dash of cayenne, salt and pepper to taste. Add two powdered crackers, and when scalding hot put milk and oyster liquor together. Add oysters and let them come to a boil.

Helen Labagh Johnson.

Note: Celery leaves may be dried and used in soups. Use water in which vegetables have been cooked for soup and gravies, as it contains nutritive value. Have a soup pot; add bones from steak, roast pork, fowls, etc., after bones have been scalded. Bones are valuable as fertilizer, containing the elements Calcium and Phosphorus.

## VEGETABLES

It may be said in general that no meat or vegetable should be cooked longer than is necessary to soften the connective tissue or the cellulose. Sometimes only a very short time is needed to develop flavor, while long cooking may wholly change this flavor. Shredded cabbage, for instance, cooked a half hour, has become tender, and has a good color and flavor; if the cooking is continued for three hours, as is the custom in the German kitchen, its color darkens and its flavor has become at least to the American palate strong and disagreeable. The importance of not over-cooking applies to all tender succulent young growths, as peas, beans, asparagus, spinach. If, when cooked, their serving is unavoidably delayed they should be closely covered and kept in a water bath; while starchy vegetables, as rice and potatoes, should be covered under the lid with a cloth which will absorb the steam that might otherwise fall back to make the vegetables sodden.

## PLANNING VEGETABLES FOR A MEAL

In planning the main portion one rule is invalid: potatoes, rice and spaghetti should never appear in the same meal, because they are too similar. When two vegetables are to be served, one should be green, like asparagus or string beans, and one of more plebeian character, like onions or beets.

## METHODS OF COOKING VEGETABLES

### TO BOIL

Wash, pare, peel or scrape the vegetables, cut into pieces of convenient size, cover with boiling salted water, using 1 teaspoonful of salt to 1 pint of water. Cook until tender, drain and dry.

Great loss of food substance in the water in which vegetables are cooked, including starch, protein and mineral salts, all of which are valuable in the diet. The water in which vegetables have been boiled should be used for soups, sauces, etc.

2. Steaming—Better method than boiling because the loss of food material is much less.

3. Baking—Best method for vegetables suitable for baking, as there is no loss of food material.

4. Sauteing—Recommended for variety.

5. Scalloping—Recommended for variety.

6. Frying in deep fat—not recommended on account of scarcity of fat.

### GENERAL PRINCIPLES UNDERLYING BOILING VEGETABLES

1. Cook all vegetables uncovered after they reach the boiling point.

   a. To retain color..

   b. To lessen odor of cooking.

   c. To allow undesirable compounds to escape in steam.

2. Cook all fresh vegetables in boiling salted water.

### ROOTS, LEAVES, STALKS, ETC.

Carrots—Contain no true starch, 2.5 per cent of pectose gum, etc., 4.5 per cent sugar, 0.5 per cent albuminoids and 89 per cent water. When carrots are boiled they lose over 90 per cent of their nutrient material. This fact suggests that to retain any food value at all, carrots should be cooked in a soup or stew.

Parsnips—3.5 per cent of starch, 5 per cent of sugar, 3.7 per cent of gum pectose, 1.5 per cent fat, 1.2 per cent of albuminoids and only 82 per cent of water. It loses a large amount of nutrient material in boiling.

Turnips—Contain 92.8 per cent of water, 3 per cent of pectose and extractives. They contain more water than milk. They are of little value except for their flavor and to furnish variety to the bill of fare.

Beets—Are a more important food than any of those just mentioned, for the ordinary garden beet has been cultivated so that it contains from 10 to 15 per cent of cane sugar. Beets also contain 2.4 per cent of pectose and more cellulose than the other roots. The addition of vinegar to boiled beets helps to soften the cellulose and it is said does not interfere with the digestion of the other carbohydrates. After beets are boiled they contain only 3 per cent sugar.

Leaves and Stalks—As celery, lettuce, etc., though they contain over 90 per cent water, yet their value should not be overlooked, for the gluten and starch which they contain are often in such a condition that they can be readily assimilated. Prominent among foods of this class should be mentioned the cabbage, cauliflower and kale.

Cabbage—Contains 5.8 per cent of carbohydrates, 1.8 per cent of nitrogenous matter and 1.3 per cent of mineral matter, but when cooked the per cent of water is increased to 94.4 per cent and other constituents decrease in like proportion. (In general, it may be said that the effect of cooking is greatly diminished in the amount of nutrients in this class of foods.)

## CREAMED VEGETABLES

Use potatoes, turnips, celery, onion, cabbage, cauliflower, beets, parsnips, salsify, brussels, sprouts, carrots, etc.

Make a white sauce, using equal portions fat and flour or two tablespoonfuls to one cup hot milk, melt fat, stir flour into it until it makes a smooth paste, add hot milk and salt and pepper to taste, and stir constantly until it thickens.

One-half as much cornstarch may be used for thickening instead of flour.

Put a layer of vegetables and a layer of cream sauces until the baking of casserole is full. Cover top with buttered bread crumbs and brown in oven. Grated cheese may be added between the layers when vegetables which do not have strong flavors are used.

## VEGETABLE SOUFFLES

These dishes are a good way to combine eggs and vegetables. If made with the green-shelled legumes (peas, beans, soy beans or cow-peas) they may be considered meat savers. Corn starch or

rice flour should be used for thickening sauces. Use half as much as you would of wheat flour.

1. A thick sauce made with ¼ cup fat, ¼ cup flour and 1 cup liquid, which may be milk (whole or skim), cream, meat stock or the water in which vegetables have been cooked.

2. One cup thick vegetable pulp made by draining cooked vegetables and then mashing them or putting them through a sieve.

3. Three eggs, the whites and yolks beaten separately.

4. Flavoring, salt, pepper, onion juice and any one of the following may be used: Very finely chopped parsley, chives, or one-eighth teaspoon curry powder. Mix the vegetables, pulp, seasoning sauce, and well-beaten egg yolks. Carefully fold in the well-beaten egg whites of the eggs, put into a buttered baking dish and bake in a slow oven until firm. Serve immediately.

The amount of vegetables in this dish may be increased by serving vegetables around the souffle.

## VEGETABLE FRITTERS

Mash cooked vegetables, such as salsify, parsnips, carrots, etc., season with butter substitute, salt and pepper, shape into small flat, round cakes, roll in flour and saute in vegetable oil or substitute for butter.

## SCALLOPED CORN

2 cups or 1 can corn,
1 tsp. salt,
1 cup milk,
⅛ tsp. pepper,
2 tbsp. fat.
½ cup crumbs,
1 tbsp. fat,
Speck salt.

Mix the corn, milk, seasonings and the melted fat.

Place in greased baking dish with buttered crumbs over top and bake in moderate oven until crumbs are brown.

To prepare crumbs, melt butter substitute, stir the crumbs into it and add salt.

## SAUTED CORN

Cut boiled sweet corn from cob and saute in vegetable oil or fat.

## SOY BEAN FRITTERS

Soy bean meal may be made into fritters and sauted.

## POTATOES

### Eat More Potatoes and Save Wheat

Our Government asks us to eat potatoes to save wheat. We have large crops this year. One small potato—3 oz.—contains as much starch as a slice of bread. (Farmers' Bulletin 871.)

The following tables give comparative food value of wheat and potato:

| | | |
|---|---|---|
| Potato | Protein, 2.5%<br>Carbohydrates, 18 to 20% (starch)<br>Almost no fat<br>Ash, 1%<br>Water, 75 to 79% | ¼ cup whole wheat=100 calories.<br>1¼ medium-sized potatoes=100 calories. |
| Wheat | Protein, 13.8%<br>Carbohydrates, 71.9%<br>Ash, 1%<br>Water, 11.4%<br>Fats, 1.9% | 1¼ medium-sized potatoes equal in food value to ¼ cup whole wheat (Lab. Manuel-Rose). |

Potatoes in their simplest forms baked and boiled make a good dish for luncheon or dinner. But there are numerous ways in which they may be prepared which gives pleasing variety.

A potato is done when a fork will pierce easily.

### POTATOES AU GRATIN (see Cheese)

### POTATO BREAD (see Breads)

Potatoes diced may be used in all meat stews, such as chicken, pork, rabbit, mutton, etc.

### SAUTED POTATOES (Raw)

Peel and slice thin the raw potatoes, have in skillet hot 1½ tbsp. of fat Mazola or other vegetable oil. Put in potatoes, cover tighty, stir often with thin knife or spatula to keep from burning. Serve very hot. The left over cold potatoes may be treated in the same way, taking less time to prepare. Cold potatoes may also be diced and put into hot cream sauce with chopped parsley.

### SARATOGA POTATOES

Slice potatoes thin. A pretty effect is to slice around and round in form of shavings. Let stand in very cold water for ½ hour; a

bit of alum added to water will make them firm. Let drain, wipe dry with soft towel. Fry a few at a time in deep kettle of fat, take up into hot dish with wire basket or perforated skimmer when light brown. Serve hot.

### RICED POTATOES

Riced potatoes are very pleasing; simply press the mashed potatoes through potato ricer. Mashed potatoes put into pudding dish with cheese or Mazola smoothed over and browned in oven are very nice.

### FRENCH FRIED

Wash, peel and cut potatoes into lengthwise sections about ½ in. thick, dry between soft towel, fry a few at a time in deep vegetable oil, drain on paper, sprinkle with salt. Serve very hot with meat sausage; especially nice for breakfast or luncheon.

### MASHED POTATOES

May be delicious or impalatable—"why not the former?"

Pare potatoes carefully, let stand for short time in cold water, drain and put in stew kettle with sufficient boiling water to cover. Cook till thoroughly done, drain, let stand a moment uncovered on fire to dry. Mash thoroughly, beat till creamy with a little hot cream or milk and salt and Mazola or other butter substitute. Serve hot.

### SCALLOPED POTATOES

Peel and slice raw potatoes, cover baking dish with vegetable fat, put in layer of potatoes, salt, pepper, a little Mazola and minced onion if liked. Sprinkle over a little rice flour or powdered arra-root. Another layer of potatoes, etc., until the dish is filled. Pour over a good thin cream sauce and bake ¾ hour.

### POTATOES SAUTED

Boil, skin, brown in fat, sprinkle with salt.

### STUFFED POTATOES

6 potatoes,
½ tsp. salt,
¼ tsp. pepper,
⅓ cup milk,
¼ lb. grated cheese,
1 egg, if desired.

Select medium-sized potatoes. Wash well, dry, bake in hot oven about ¾ hour or until soft. Remove from oven and at once

slice off top or cut in half, but do not otherwise break skin. Scoop out inside with spoon, mash, add salt, pepper, hot milk, beat in grated cheese and egg. Return to shell, bake 10 minutes.

Boiled potatoes may be mashed and prepared same way and piled as a cone on dish and baked 10 to 15 minutes.

Mary Sherzer.

## SWEET POTATOES GEORGIAN STYLE

Season mashed boiled sweet potatoes with butter substitute, salt, pepper and sherry wine. Moisten with cream or milk and beat 5 minutes, put in a greased baking dish, leaving a rough surface. Pour over a syrup made of boiling two tablespoons of molasses and one teaspoonful fat 5 minutes. Bake until delicately browned.

Notes: Eat skins of Irish and sweet potatoes, as they contain "growth determiners" or vitamines.

Boil potatoes with skins on them—this saves waste.

Apply this note to above recipes. Vary recipes by always seasoning with common sense.

Mashed potatoes may be used in place of biscuit crust in making meat pies.

Sweet potatoes may be used in much the same way as white potatoes.

## SPINACH

Use one-fourth peck of spinach, remove roots, carefully pick over (discarding wilted leaves) and wash under running water to free from all grains of sand. Put in a stew pan, allow to heat gradually and boil 25 minutes or until tender in its own juice. Drain thoroughly, chop finely, reheat and season with 3 tablespoonfuls butter substitute, salt and pepper. Form in pleasing shape on serving dish and garnish with slices of hard cooked egg.

## CORN FRITTERS

1 cup flour,
½ cup milk,
2 eggs,
1 tbsp. Mazola,
2 rounded tsp. baking powder,
1 tsp. salt,
⅛ tsp. pepper,
1 cup grated or chopped corn.

Sift flour, baking powder, salt and pepper into bowl, add milk, well beaten eggs, Mazola and grated corn, or if canned corn is used put it through meat chopper, and mix well and fry in deep hot vegetable oil.

## Milk

The world is desperately hard up for butter and milk. For small children nothing can take the place of milk and butter; they die if they don't get them. For grown folks they are next to meat.

Milk from the cow is almost a complete food. Skim milk is nearly the same in food value as lean meat. One quart of milk has more fuel value than half a pound of good beefsteak, and more than eight eggs. Milk contains vitamines and much lime, which makes it a food for growing children.

Before the war we had a hard problem to get milk enough. Now we are sending ten times as much condensed milk to Europe as we did five years ago.

Our Allies have been killing their dairy cattle for food to an alarming extent. They had to because they needed the meat and were short of cattle feed.

Our own dairy herds are less than they were as some have been slaughtered because of the high cost of feed—and because farm hands are scarce to milk the cows.

Milk is too valuable to waste. Give it to the children to drink, or if you give them skim milk, give plenty of butter to match it up. Drink SKIM MILK, use it in cooking.

If it sours it is still good for cooking or for making cottage cheese.

Don't let a drop of milk be wasted.

Until the school age, milk may well be the main part of the diet. Give children milk, which is good for them, instead of coffee and tea, which destroys their appetites, makes them nervous and does not nourish them. If a child refuses plain milk, serve the milk combined with bread or cereal, or as milk soups, junkets, custards, cocoa, etc. It is almost impossible to give any other food in place of milk to a baby without danger of harm.

Mr. Hoover has distinctly told us that children must have whole milk and butter; these together with fresh fruits and vegetables contain that newly discovered element necessary to bodily growth known as vitamines, and right here let me state that the form of fat most commonly used, lard, is entirely lacking in vitamines. It produces bodily heat, but not life.

¾ lb. of lean round of beef,
8 eggs,
2 lbs. of potatoes,
6 lbs. spinach,
7 lbs. lettuce,
4 lbs. cabbage,
2 lbs. salt codfish,
3 lbs. fresh codfish,
2 lbs. chicken,
4 lbs. beets,
5 lbs. turnips,
⅙ lb. butter,
⅓ lb. wheat flour,
⅓ lb. cheese.

## MILK AS A LIQUID

Milk coagulates and becomes a solid in the stomach and should not be regarded as a drink but as a food. It should not be swallowed down rapidly, but sipped slowly, as the faster the milk is swallowed the larger the curds in the stomach and the harder to digest. Procure the very best.

There are special methods of varying milk in the diet. Taste may be altered by heating or adding seasoning, spices, coffee, cocoa, mineral water.

## SOME KINDS OF MILK

| Whole | Modified |
|---|---|
| *Koumiss | *Lactic acid |
| *Buttermilk | |

* These milks are good in digestive disturbances as the lactic acid bacteria (flavorable bacteria) destroy the putrifactive bacteria, which are harmful bacteria, which produce a disturbance called intestinal intoximia. This comes when the food remains in the intestines for a long time.

## FOOD FOR YOUR CHILDREN

**Help your child to grow big and strong**

Uncle Sam is determined to save our babies. America has been startled by the physical defects of the young manhood revealed by the selective draft and, therefore, the government has started a campaign to free the rising generation from like disability. It is a startling fact that according to records the soldier has seven times more chances for living than an American baby during the first year of its life.

The most desirable foods for children are milk, eggs, beefsteak, mutton chop, roast lamb and chicken, baked, boiled or steamed vegetables, fruits, custards, junket, rice pudding, tapioca, gelatine, milk, water, cocoa.

The following should not be given to children: Dried or salted fish or meat, fried or sauted foods, raw vegetables, fresh and rich preserves, tea, coffee, or alcoholic drinks.

### Here's Good Food for a Real Youngster's Day

A good breakfast to start him off: Milk, corn meal mush, apple sauce. It makes him fit for school and fit for play.

MILK, and plenty of it, makes him grow—a quart each day if you can. Put it on his cereal and in his soup. Make it into puddings or custards for him. Try the recipes on the next page and watch him smile.

WHOLE milk is best, of course, but skim milk is good if there is a little butter in his meals. Cottage cheese is good, too.

NO COFFEE OR TEA—not even a taste. Leave them for the grown-ups. Milk, cocoa, not too strong, and fruit juices are the drinks for children, and plenty of water always.

FRUIT they enjoy, and they need it, too; baked apples, apple sauce, thoroughly ripe bananas, prunes, oranges, etc. Give them vegetables, fresh or canned. Plenty of fruits and vegetables tend to prevent constipation. Use proper food and do not depend upon laxatives.

OTHER FOODS a child needs: Whole wheat bread, not too fresh corn bread, well-cooked oatmeal, corn meal, rice. They help make strong boys and girls. Some fats, butter or margarine or meat fats on his bread or in gravies. An egg, perhaps, particularly if he doesn't get his full quart of milk, or he can have a little meat or fresh fish, but he does not need much.

SWEETS are good for them—the right kinds at the right time. Dates, raisins, stewed fruits, simple puddings, sugar cookies are better than candy. Give them at meal times.

Betweeen meals let them have bread and butter, a cracker or fruit. They won't spoil the appetite, and candy will.

### PLAN MEALS LIKE THESE

Here are two sets of the right kind for your youngster. Grown people will like them, too. If sometimes these seem too much work, bread and milk alone will make a good meal.

## BREAKFAST

**No. 1**

Apple sauce,
Oatmeal with milk,
Milk to drink.

**No. 2**

Stewed prunes,
Cocoa (weak),
Toast and butter.

## DINNER

**No. 1**

Stew, with carrots, potatoes, and a little meat,
Whole wheat bread,
Creamy rice pudding,
Milk to drink.

**No. 2**

Fish, with white sauce,
Spinach or any greens,
Corn bread,
Milk to drink.

## SUPPER

**No. 1**

Cream of bean soup,
Crackers and jam,
Milk.

**No. 2**

Baked potato,
Apple Betty,
Milk.

# Your Child Must Have the Best of Foods

## GOOD DISHES FOR CHILDREN

These dishes are good for children and grown-ups, too. The recipes provide enough for a family of five.

### MILK-VEGETABLE SOUPS

1 qt. milk,
2½ tbsp. flour,
2 tbsp. butter or margarine or other fat,
1 tsp. salt,
2 cups thoroughly cooked vegetables, finely chopped, mashed or put through a sieve. Spinach, peas, beans, potatoes, or asparagus make good soups.

Stir flour into melted fat and mix with the cold milk. Add the cooked vegetables and stir over the fire until thickened. If soup is too thick, add a little water or milk.

### RICE PUDDINGS

1 qt. milk,
⅓ cup rice,
⅓ cup sugar,
½ cup raisins or chopped dates,
½ tsp. salt,
⅛ tsp. ground nutmeg or cinnamon.

Wash the rice, mix all together and bake three hours in a very slow oven, stirring now and then at first. This may be made on top of the stove in a double boiler, or in a fireless cooker. Any coarse cereal may be used in place of rice.

For more suggestions send to the U. S. Department of Agriculture for Farmers' Bulletin, "Food for Young Children." It tells more about feeding children and the reasons why right food is so important. It shows every mother how to give her children their chance in life.

U. S. Food Leaflet No. 7.

Reference, Holts' "The Care of Feeding Children."
Mrs. Rose, "Feeding the Family."

# Sauces

To make good sauce is to be master of an art. It requires great care and attention to the smallest detail. A sauce is intended as an accompaniment to meat, fish, vegetables or dessert with which it is served, and should be in perfect harmony with it. It should never be so prominent in flavoring as to overbalance the flavor of the food. Certain sauces are associated with certain particular foods. Mint sauce with lamb, caper sauce with mutton, cranberry sauce with turkey, and Hollandaise sauce with fish. Color adds to the attractiveness of a sauce and may be obtained by the addition of browned flour, caramel or fruit vegetable juices.

## GENERAL RULES FOR MIXING

The thickening material must be separated by mixing with either fat, cold liquid or sugar before heat is applied. Use an equal amount of fat, double amount of liquid, double amount or sugar. Either the thickening material is cold, the liquid is hot, or the thickening material is hot and the liquid is cold. When the two parts of the sauce are mixed the sauce must be stirred until it thickens. Mix the salt with the flour.

## METHODS OF MIXING

1. Hygienic—Mix the thickening material with the cold liquid, stir into the heated liquid. Stir until the starch is cooked 3-5 minutes over direct heat, 15-20 minutes in double boiler when milk is used. Add butter just before serving.

2. American—Mix thickening material with fat. Heat liquid and stir into it the thickening material. Cooked as the first method.

3. French—Heat the fat and stir into the thickening material. Add the cold liquid and cook 3-5 minutes over direct heat.

## STARCHY SAUCES

| Ingredients | Liquid | Thickening | Seasoning | Flavoring | Use |
|---|---|---|---|---|---|
| PROPORTIONS | 1 cup milk | 1 tbsp. flour | ½ tsp. salt | 1 tbsp. butter substitute | cream soups |
| | 1 cup milk | 2 tbsp. flour | ½ tsp. salt | 1½ tbsp. butter substitute | creamed or scalloped dishes or gravies |
| | 1 cup milk | 3 tbsp. flour | ½ tsp. salt | 2 tbsp. butter substitute | souffles |
| | ¼ cup milk | 4 tbsp. flour | ½ tsp. salt | 2½ tbsp. butter substitute | croquettes |
| KINDS | 1 cup water<br>1 cup veg. sub.<br>1 cup meats "<br>1 cup milk<br>1 cup cream<br>1 cup vinegar | 1 tbsp. flour or 1½ tbsp. browned flour for light brown or 2 tbsp. browned flour for dark brown | salt<br>pepper<br>sugar<br>bay leaf<br>cloves<br>mustard<br>celery salt<br>onion salt | butter or meat fat | with meat, vegetables or cheese |
| | 1 cup water<br>1 cup fruit<br>1 cup milk<br>1 cup cream | 1 tbsp. flour<br>¾ tbsp. cornstarch | cinnamon<br>cloves<br>nutmeg | butter<br>sugar<br>extracts | with puddings |

## CREAM SOUPS

Use equal portions of sauce and stock with pulp of cooked food. This is obtained by pressing through a sieve. Combine and reheat.

## CREAMED DISHES

Use equal portions of sauce and food to be creamed. Pour the sauces over the food and reheat, if necessary, in double boiler.

## SCALLOPED DISHES

Use equal portions of sauce and food. Place alternate layers in a buttered dish. Cover with buttered crumbs. Reheat and brown in the oven.

## SOUFFLES

Use equal portions of sauce and food with 3 eggs to each cup of sauce. Add the egg yolks to the sauce. Mix with the food. Fold in the egg whites and bake in buttered baking dish set in a pan of hot water.

## CROQUETTES

Use equal portions of sauce and food. Mix and cool. Shape roll in crumbs slightly and add 1 tablespoonful of water or milk.

## Eggs

**The Nature of the Nutrients** in eggs is of almost as much interest and importance as their amount. The fact that when an egg is kept at a proper temperature for about three weeks, without the addition of anything from without, it produces a chick so well developed as to begin to walk and eat the same food as the adult, suggests at once that the egg must contain substances which are very efficient as sources both of the energy and the materials for growth and development. Children from one year to twelve years should not be deprived of the growth-determining substances, namely, vitamines in eggs and milk and butter; eggs contain the iron for the anemic.

7-8 eggs=1 pound of meat of food value.

See effect of heat on protein.

Eggs are used as

1. A meat substitute.
2. A flavor.
3. A leavening agent.
4. A thickening agent.
5. A clarifying agent.

**Cookery of Eggs.**

1. As leavening agents.

The egg white of a beaten egg is full of air bubbles surrounded by the cell wall of protein. The air is a gas and expands with heat, thus making the substance (as in cake) light.

2. Thickening agent.

Heat coagulates the protein of the egg, thus forming a thickened mass (as in custards). Egg as a thickening agent is equal to 1 tablespoonful cornstarch.

3. Eggs act both as a leavening and flavor in quick breads. They can be omitted in these foods. The flavor may be omitted when eggs are high by using good brands of desiccated or powdered egg.

4. As a clarifying agent. The albumen surrounds and coagulates around the coffee grain, making coffee grain heavy, and it settles to the bottom of the pot in which it is cooking.

Note: Add a speck of salt to egg white; it toughens the protein (albumin) just a little and makes it beat up better.

Percentage Composition:

| White: | | Yolk: | |
|---|---|---|---|
| Water | 76.2% | Water | 45.5% |
| Protein | 12.3% | Protein | 15.7% |
| Fat | .2% | Fat | 33.3% |
| Ash | 6% | Ash | 1.1% |

Mineral matter or ash: Sulphur, phosphorus, hydrogen, sulphide. The blueish-green coating around the yolk of a hard cooked egg is due to the mineral matter. Because of the mineral matter (bone and nerve building materials) eggs are good for growing children. They contain all the necessary elements in the right proportion for growth.

**Testing Eggs:**

A good fresh egg

1. Has a rough shell.
2. Is clear when held to a light.
3. Sinks in water.
4. Has no sound of movement when shaken.

**Methods of Preservation:**

1. Coating shell (paraffine).
2. Putting eggs in lime water.
3. Putting eggs in brine.
4. Packing in bran or salt.
5. Water glass solution.
6. Cold storage. 30-40° F.

Note: Eggs in water glass have been known to keep 3½ months and taste just as good as fresh eggs.

**Methods of Cooking Eggs:**

Soft Eggs.

1. Soft boiled: place egg in boiling water, cover and remove to place where water will keep hot, but not boil, 8-10 minutes. 180° F., 87° C.

2. Put in boiling water and boil vigorously from 2-3 minutes. (This toughens protein; is not a good method.)

3. Put egg on in cold water and bring to a boil and egg is done.

Hard Eggs.

1. Place egg in boiling water and remove to warm place for 40 minutes (double boiler).

2. Put eggs on in cold water and boil 30 minutes (not a good method).

Note: Place egg after cooking in cold water, this allows the egg to shrink from shell and lining.

Always wash eggs before breaking open or cooking. The shells are dirty and covered with bacteria.

## RECIPE FOR WATER GLASS

½ part syrup of Calcium Silicate,
10 parts water.

## BREAD OMELET

3 eggs,
½ cup milk,
½ cup crumbs,
¾ tsp. salt,
⅓ tsp. pepper,
1 tbsp. oleo.

Soak bread in milk, add beaten egg yolks and seasonings. Fold in beaten whites, cook and serve as plain omelet.

Anna Jensen,
St. Joseph, Mo.

## DRIED EGGS

The method of using the dried egg is very simple. One slightly rounded tablespoonful is equivalent to one average-sized egg. This amount soaked for half an hour in 3 tablespoonfuls of water may be used in place of one egg. The egg will soften up more easily and be ready more quickly if stirred with fork at intervals.

Substituting on this basis, one may use dried eggs in any recipe for cakes, cookies, muffins, custard, cooked salad dressings, etc., in which the whites and yolks are not separated. The following ways of using dried eggs are suggested:

## SCRAMBLED EGGS

1 tbsp. dried eggs soaked in ¾ cup water,
1 tbsp. butter sub.,
¼ can milk,
Salt,
Pepper.

Soak egg and beat well, add milk, salt and pepper and cook in

the hot fat. This amount serves four people. The food value will be increased if the egg is soaked in one cup of skim milk.

## CUSTARDS

Custards are combinations of milk and egg sweetened and flavored. Because of the protein present they should be cooked at a low temperature. This is accomplished by steaming or by baking in molds set in pans of water. Custards are classified according to the method of preparation. There are two kinds, steamed and baked.

**To Combine a Steamed Custard** scald the milk and pour it over the egg which has been beaten with the sugar and salt. Return the mixture to the double boiler and steam, stirring constantly until done. Add the flavoring just before removing from the fire.

**To Combine a Baked Custard,** beat the egg with the sugar and salt. Add the cold milk and flavoring. Pour into molds and set in pans of water and bake until done.

**To Test a Steamed Custard,** lift the spoon from the mixture. If the spoon is coated the custard is done.

**To Test a Baked Custard,** insert a knife. If it comes out clean the custard is done.

### SOFT CUSTARD

2 tbsp. dried eggs soaked in ⅓ cup water for 20-30 min. or **1-2 eggs,**
1¼ cups milk,
¼ cup (4 tbsp.) honey or syrup,
Flavoring.

Add the syrup to the milk; beat in double boiler, and when hot, add the egg well soaked and beaten. Stir while cooking, and when custard has thickened, strain it so that any particles of dried egg not soluble will be removed. It will be found that the amount of insoluble matter is very little greater than in a custard made with fresh eggs.

### BAKED CUSTARD

2 tbsp. (slightly rounded) of dried eggs soaked with ⅓ cup water, or 2 eggs,
1 cup milk,
¼ cup honey or syrup,
Flavoring.

Combine as in the soft custard, strain, add flavoring and bake in an earthenware or granite baking dish in a slow oven until "set." Attractive when baked in ramekins and served individually.

## COMPARISON FATS AND OILS

| Kind | Price | Source | Physical Characteristics | Melting Point | Decomposition Point | Use |
|---|---|---|---|---|---|---|
| Butter | 50c per lb. | cream | golden yellow | 40°c | 60°c | seasoning shortening, table use |
| Renovated butter | 45c to 50c per lb. | rancid butter | deep yellow | 37°c | 108°c | shortening butter substitute |
| Oleomargarine | 35c per lb. | veg. fat, lard, butter, milk or cream | more porous than butter | 47°c | 115°c | seasoning butter substitute |
| Lard | 28c per lb. | animal | grayish white creamy solid | 30°c | 170°c | shortening, frying, sauteing |
| Cottolene | | beef fat, cottonseed oil | translucent solid | 38°c | 200°c | frying, sauteing shortening |
| Snow drift | | cottonseed oil bf. fat hog fat | white smooth creamy solid | 50°c | 160°c | frying, sauteing shortening |
| Crisco | 29c per lb. | vegetable fat hydrogen | white smooth solid | 45°c | | frying, sauteing, shortening |
| Olive oil | | olive fat | straw colored liquid | 18°c | | salad dressing frying |
| Wessen oil | | refined cottonseed oil | greenish yellow liquid | 20°c | | substitute for olive oil in salad dressing |
| Peanut oil | | oil from c'shd peanuts | yellowish | Begins solidifying at 0°c | | substitute for butter in cooking |
| Mazola | 25c to 26c per lb. $1.10 per gal | germ of corn grain | golden yellow | | | substitute for olive oil in salad dressing and frying |
| Troco | 35c per lb. | cocoanut oil crm | white, solid | | | oleomargarine |

# Fats and Butter Substitutes

Note: Dairy butter has food value vital to children, therefore use it on the table as usual. Use vegetable oils, as olive, cotton seed and corn oil. Save daily one-third of an ounce of animal fat. Waste no soap, it contains fat and the glycerine necessary for explosives. You can make scrubbing soap at home, and in some localities you can sell your saved fats to the soap maker, who will thus save our needed glycerine.

U. S. Food Administration.

---

## HOW TO SAVE FATS

**Bab Bell,**

**Extension Assistant Professor of Home Economics,**
**Missouri University**

Fats are derived from two sources—animal and vegetable. Animal, such as lard, butter, cream, beef fat, mutton fat and poultry fat. Vegetables, such as corn, cotton seed, olive, peanut, cocoanut, soy bean and sesame oils.

Formerly more animal fats than vegetable fats have been used. Butter and lard were plentiful, accessible and in convenient form for household use. The average housekeeper depended upon them to the exclusion of all other forms of fat. Since there is a shortage in these particular fats, housekeepers must learn (1) to economize in the use of these by cutting down the amount of fat used; (2) to substitute wherever possible vegetable fats in place of animal fats.

Since the conservation of fats in the home is a very important means of increasing the supply needed for exportation and home use, it becomes imperative that housewives should have a thorough knowledge concerning their composition, food value, digestibility, uses in cookery and general rules for conservation.

798753 A

## COMPOSITION OF FATS

| | Water | Protein | Fat | Carbohydrate | Ash | Fuel Value per pound in calories |
|---|---|---|---|---|---|---|
| Butter | 11. | 1. | 85 | | 3. | 3605 |
| Oleomargarine | 9.5 | 1.2 | 83 | | 6.3 | 3525 |
| Beef Fat | 13.7 | 4.7 | 89 | | .3 | 3540 |
| Suet (Rendered) | | | 100 | | | 4220 |
| Lard | | | 100 | | | 4220 |
| Poultry fat (Rendered) | | | 100 | | | 4220 |
| Cottonseed Oil | | | 100 | | | 4220 |
| Corn Oil | | | 100 | | | 4220 |
| Peanut Oil | | | 100 | | | 4220 |
| Olive Oil | | | 100 | | | 4220 |

**Food Value:** From this table the comparative food value of fats in general is seen. It should be remembered that fat yields two and one-fourth times as much energy for the body as equal weights of carbohydrates or protein. More and more is the importance of fat in the diet being recognized. Thirty per cent of the total number of calories needed in the diet should be furnished by fat. In the ordinary diet this is approximately four tablespoonfuls or one-fourth cup.

The digestibility of fat is of more importance, especially when making substitutions. Generally speaking, animal fats and vegetable fats are equally digestible. Recent investigations have shown that there is very little difference in the digestibility of fats that have a melting point below body temperature. While the eating of large quantities of fat may retard the digestion of food, it is unlikely that any serious discomfort will be felt if it is prepared intelligently. Fats in general are completely digested, but require a longer time than most foods.

**Butter:** Butter is the most widely used of all fats. It has been estimated that from 17 to 18 pounds per person are consumed yearly. There are many good and wholesome butter substitutes on the market which may be used both for cooking and table use. However, if these are used exclusively in the feeding of children, care should be used that the supply of whole milk should not be decreased. Whole milk and butter contain certain substances essential to growth which are entirely lacking or present in small quantities in butter substitutes.

**Oleomargarine:** Oleomargarine is a name given to butter substitutes made by churning fats other than butter with milk or cream. The principal fats usually used in the manufacture of oleomargarine are oleo oil made of beef fat and neutral lard made of leaf and cotton seed oil. Oleomargarine is a good, wholesome product, and there should be no objection to its use if it is properly labeled. The best grades of oleomargarine contain nearly one-third as much of the growth-promoting substances (vitamines) as butter does.

**Beef Fat:** Beef fat is harder than lard and has a more pronounced flavor. For these reasons it is not used extensively in cooking. However, in certain dishes, finely chopped unrendered suet is used, and in some countries drippings from the cooked

beef or rendered beef suet are used in place of butter on bread.

Suet alone is of a hard consistency, but a good and satisfactory compound may be had by mixing cotton seed oil, corn oil, etc., with suet. Mix one part of oil with two or three parts of rendered suet. If ½ cup of skim milk be added to 1 cup of suet before rendering, the flavoring is improved. In summer, suet may be added to lard in small amounts in order to have a harder fat.

**Lard:** Lard is one of the most commonly used animal fats. It is made from the fat of hogs and heretofore has been plentiful and comparatively cheap. Owing to the fact that most women are in the habit of using lard, it is somewhat difficult to accustom them to the use of vegetable oils and fats.

**Cotton Seed Oil:** Cotton seed oil is obtained from the seeds of the cotton plant. One ton of seeds yields 50 gallons of oil. Preparations made of cotton seed oil are sold in the liquid form, Wesson oil being a typical example. In addition, cotton seed oil is treated chemically to form hard fats, such as Snow Drift, White Cliff, Crisco, etc. All of these compounds have been found to be good and wholesome products. Combinations of cotton seed oil and animal fats are also on the market. The label on all packages gives the ingredients.

**Corn Oil:** This oil, which is made from corn, has only lately come into general use for food purposes. It is a wonderful substitute for olive oil. Has a good flavor. May be used in all kinds of cooking.

**Peanut Oil:** The oil made from peanuts is comparatively new in this country, since peanuts have been disposed of in other ways. Its use in cookery is very limited at the present time.

**Olive Oil:** Olive oil is prepared from the olive fruit, and is one of the oldest oils now in use. The flavor depends upon the variety of olive, ripeness when picked, manner of handling, length of time of storage, etc. The extensive use of olive oil is due to its flavor. Olive oil has no more food value than the other oils. Its high price is due to its flavor alone.

All fats have advanced in price, yet a great saving may be accomplished by investigating the available fats on the market, their composition and their prices. As a general rule fats are less expensive when purchased in large quantities. A decided sav-

ing may be made by purchasing both oils in gallon receptacles and harder fats in corresponding amounts.

Many commercial fats are sold with the statement that one-third less may be used than lard. This statement is somewhat misleading. One fat should be substituted for another according to its composition. All 100 per cent fats given in the table on the composition of fats may be used interchangeably. Approximately seven-eighths as much of these fats will substitute for butter and oleomargarine.

**Savory Fats:** Savory fats may be made when undesirable flavors are to be eliminated. Usually strong seasonings, such as thyme, sage, marjoram, summer savory, bay leaves or onions are added to unrendered fats, having pronounced odors or flavors like those of beef or mutton.

These seasonings mask the strong original flavors. Render in a double boiler and strain carefully through a cloth so that all bits of herb are removed. Adding salt after rendering improves the flavor.

Savory fats may also be prepared from rendered fats by adding the seasonings, heating the mixture and straining.

Fats with strong flavors, such as suet and mutton fat, may be improved by heating with water, milk, or charcoal. If charcoal is used, all pieces may be removed by straining through a heavy cloth.

**Care of Fats:** All fats which are to be stored for some time should be protected from heat, light and air, in order to prevent them from becoming rancid. Keep in tightly covered receptacles and in a cool, dark place.

In summer time scraps of fat which are saved should be rendered promptly to prevent them from becoming rancid. It is also important in rendering or clarifying fats that all moisture be driven off, since molds are very apt to grow if fats contain moisture.

Keep butter, oleomargarine and other butter substitutes in a cool place away from food having strong odors, since odors are readily absorbed by these fats. Store the oils in closed cans or bottles wrapped in paper in a cool place—the refrigerator is preferable.

**How to Render Fats:** Chop in small pieces or put through a meat chopper, heat in a double boiler until all the fat has melted. The use of a double boiler prevents too high a temperature. If fat is over-heated it will become rancid. Strain through a cloth, heat again to sterilize and drive off moisture.

**How to Clarify Fats:** Method I: Melt the fat with an equal proportion of water in a double boiler. Strain through a cloth. When cold remove the layer of fat from the water.

Method II: Follow directions given in I, using sour milk. Flavors and odors are modified.

Method III: Follow directions in I, adding several pieces of clean hardwood charcoal. If beef fat is being clarified, the yellow color is removed and a white odorless fat is secured.

In many homes the practice of making soap from drippings, trimmings, etc., has long been the custom. At the present time when fats are so scarce every effort should be made to utilize every particle for good. If the scrap jar is watched carefully, no fats will be available for soap making.

Many people are eating more fat than their bodies require. This extravagance means that our soldiers and the working people, who need generous amounts of fat, will be denied this necessity. If everyone realizes the seriousness of the situation and will cut down on his daily allowance of butter, cream, oil and cooking fat, a large amount of fat will be saved.

## SUGGESTIONS FOR FAT CONSERVATION

1. Eat just enough fat to supply body needs. Thirty per cent of the total number of calories in the ration is sufficient, or four level tablespoons.
2. Leave no fat on the plate. This means fat from meat as well as butter.
3. Use pure butter on the table, especially for children, but sparingly for cooking.
4. Do not use it in cooking.
5. Peanut butter, jellies, or nut and fig paste are excellent substitutes.
6. Use vegetable fats (made solid by treating commercially with hydrogen).
7. Use vegetable oils for frying and salad dressings.

8. Make gravies to conserve the flavor of the extractives and the food value fats from meats.

9. Keep all rinds of bacon and salt pork. Use as seasonings when cooking cabbage, greens, vegetables, soups, etc.

10. Save all trimmings from beef, pork, mutton and fowl. Render and use in cooking.

11. Keep a small jar for bits of fats, drippings or gristles. When a sufficient amount has been collected, render the contents.

## WAR BUTTER

How to make 2¼ pounds of butter out of 1 pound.
of ½ pound.

1 lb. butter,
1 pt. rich milk,
1 tbsp. gelatine.

**Method No. 1.** Cream butter. Put small amount cold milk with gelatine. Heat rest, pour over soaked gelatine. Add to butter, heat until it begins to thicken, place on platter by spoonful to thicken. 1 pound makes 2¼ pounds.

½ lb. butter,
1 tsp. salt,
½ lb. whole milk.

**Method No. 2.** Churn 2 minutes. Can be done with mason jar and spoon beater, ice cream freezer, Daisy churn.

## PASTRY

Use little pastry when you do make pies, use one crust instead of two.

Try the New England deep apple pie, with only one top crust.

Use the vegetable fats instead of animal fats in making pastry.

If vegetable oils are used the quantity of fat may be reduced by one-third; that is 2¾ tablespoonfuls of oil to 1 cup of flour is sufficient. The oil itself helps to moisten the flour so that very little water is necessary. The dough should be made as dry as possible to make a tender pastry.

U. S. Food Administration.

## CONSERVATION OF PIE CRUST

### CORN MEAL CRUST

Grease a pie plate well. Cover with raw corn meal, giving the plate a rotating motion so that an even layer of the meal will

stick to the plate about 1/16 of an inch in thickness. Fill the plate with pumpkin pie mixture. Bake in hot oven.

### OATMEAL CRUST

2 cups finely ground oatmeal, 1 tsp. salt.
1 cup boiling water,

Scald the oatmeal with the water. Add fat and mix thoroughly. Roll very thin and line small pie or tart tins with the mixture. Bake in hot oven. Fill with apricot marmalade or other thick mixture. If desired spread a meringue on top and brown in the oven.

### MEATLESS MINCEMEAT

Another culinary triumph in the art of food conservation has been brought to the attention of housewives of the country by the National Emergency Garden Commission as a worthy companion of pumpkinless pumpkin pies and gingerless ginger bread. The new mincemeat, officially described as "camouflage," was tried on 500 troops on a transport, who pronounced it perfect and called for more. Half a package of raisins, half a pound of prunes stewed with lemon juice and peeled; ¼ cup of sweet cider, 4 tablespoonfuls or brown sugar. Chop raisins and prunes together and the result is said to be a meatless mincemeat pie in accord with the Food Administration's meatless Tuesday.

### MOCK MINCEMEAT (No Meat)

**To Be Baked in U. S. Food Administration Crust**

11 cups chopped green tomatoes,
7 cups chopped apples,
1½ cups vinegar,
2 packages raisins,
2 cups water,
5 cups brown sugar,
½ cup suet,
1 tsp. salt.
2 tbsp. mixed spices (allspice, cloves, cinnamon and nutmeg),

Grind tomatoes, add salt, drawn over night through bag. Mix all ingredients and cook slowly for 2½ hours.

Note: Best results are obtained by using fireless cooker, and cooking 6 or 7 hours. Mrs. R. J. Winters.

### BRER RABBIT OLE SOUTH MOLASSES PIE

**A Southern Pie That Will Make Any Cook Proud**

1. Boil 2 cups of Brer Rabbit Molasses and 1 tablespoonful of butter.

2. Break 4 eggs in bowl or pan; add pinch salt; beat until well mixed.

3. Pour the molasses over the eggs, stirring briskly.

4. Have pie pans lined with crust. Pour in and bake. This makes two pies. If you wish to make but one pie, equally divide the ingredients.

## PREPARATION AND PROPERTIES OF SOAP AND EQUATIONS SHOWING THE REACTIONS

Natural fats and oils are essentially mixtures of stearin, palmitin and olein. Beef and mutton fat are chiefly stearin, lard is mainly palmitin and olein, and while oils, such as olive, are chiefly olein, stearin and palmitin are solids at the ordinary temperature, but olein is a liquid.

Tallow is chiefly stearin, but human fat and palm oil are largely palmitin. The soft and liquid fats and oils contain considerable olein as a rule. The proportion of the olein determines the consistency of the fats and oils. Thus olive oil contains 72 per cent of olein (and a similar fat) and about 28 per cent of stearin and palmitin.

Butter consists of fats corresponding to the following acids: palmitic, stearic, oleic, butyric, capric and caproic. The last three, together with traces of other substances, give butter its pleasant flavor. Oleomargarine and other substitutes for butter resemble real butter very closely in composition.

$C3H3(OH)3$.

Glycerine is a thick, sweet liquid. It is used to make nitroglycerine. It is also used as a solvent, a lubricator, a preservation for certain foods as a sweetening substance in certain preserves and candy.

Glycerine is a by-product in the manufacture of soap. Glycerine is an alcohol and for this reason is often called glycerol when treated with a mixture of concentrated nitric and sulphuric acids it forms nitroglycerine ($C_3H_5(ONO_2)_3$). This is a heavy oily liquid, a well-known explosive and an ingredient of other explosives.

When mixed with infusional earth, fire and sand and even sawdust it is known as dynamite.

## HARD SOAP

1. Stearin (beef or mutton fat)+Water=glycerine+stearic acid. Stearic acid+sodium chloride=sodium stearate, or (hard soap) +Hydrochloric acid.
2. Stearic acid+sodium hydroxide=hard soap and water.

## SOFT SOAP

Stearin (beef or mutton fat) potassium hydroxide=soap and glycerine.

## HOME METHOD OF MAKING SOAP

Empty the contents of a can of lye into a stone jar, pour over it 2½ pints of cold water and stir until lye dissolves. Set aside until the temperature is not over 80° F. or 26 2/3° C. Melt 5½ pounds of clean greasy tallow, or lard, and set aside until the temperature is 120° F. or 49° C., slowly pour dissolved lye into the grease, stir until lye and grease are thoroughly combined and mixture drops from stirrer like honey. Stir slowly but not too long, or you may separate the lye; from 5 to 15 minutes is enough, according to grease and weather. Pour into a mold, set away for a day or two, empty out and cut up as desired.

## SALADS

### Vegetable Oils

Salads are divided into two groups, dinner salads and the more substantial salads served at supper and luncheon in the place of meats.

Fruit salads are much out of place in the dinner menu unless they figure as the last course, when they are served with crackers, cheese and coffee. This is an unusual custom that is rapidly growing in popularity. Fruit salads are naturally sweet, and when followed by a dessert, the palate is not apt to become clogged with sweet. As a general rule sweets and savories do not mix, although occasionally they may be blended as currant or orange salad with game. These exceptions must, however, be introduced with sparing hands, as they often strike a discordant note.

The heavy salad, swathed with mayonnaise or boiled dressing, is entirely out of place at dinner, because it overloads the menu with fat. Only those salads of green vegetables should be selected, like lettuce, beets and cabbage, tomatoes and cress, asparagus, etc., French dressing with variations alone being suitable.

Heavy salads fit into light luncheon better than into any other meals, and may often form the main dish, while a fruit salad is always acceptable in place of dessert.

Salads are of exceeding importance in metabolism.

The green vegetables and fruits contain the so-called inorganic elements as mineral salts, which must exist in the body and take part in functions in at least three different ways: (1) as the constituents which give rigidity and comparative permanence to the skeleton; (2) as essential elements of the protoplasm of the active tissues; (3) as salts held in solution in the fluids of the body, giving these fluids their characteristic influence upon the elasticity and irritability of muscle and nerve supplying the material for the acidity or alkalinity of the digestive juices and other secretions and yet maintaining the neutrality of slight alkalesence of the internal fluids as well as their osmotic pressure and solvent power.

Left over greens, vegetables, string beans, peas, carrots, turnips, cauliflower, cooked spinach, beets and leeks may take their place in the dinner salad. Use them mixed, alone, or as a garnish for lettuce.

The oil used in the salad dressings has much food value. It is a heat and energy producing substance.

## MAYONNAISE DRESSING

2 eggs (yolks),
2 cups Mazola oil,
2 tbsp. vinegar,
Juice of 1 lemon,
1 tsp. salt,
1 tsp. mustard,
Dash cayenne.

Set the mixing bowl in a pan of chopped ice and have ingredients very cold.

Mix the seasonings and add to the beaten yolks of the eggs. Beat with a small wooden spoon or silver fork. At first add the oil drop by drop, beating vigorously. When too thick to beat, add 1 teaspoonful vinegar. Continue to add the oil slowly, alternating with the vinegar and the lemon juice until at least ½ cup of oil has been added. Onion juice may be added if desired.

If the oil is added too rapidly the dressing separates and has a curdled appearance. This should never happen if the oil is added very slowly at first; but in case it does, put the yolk of another egg into a clean bowl and beat in the curdled dressing slowly.

After a half cup of oil has been added the dressing may be beaten with a Dover egg beater and the oil added more rapidly.

### NORWEGIAN MAYONNAISE

Add a tablespoonful of anchovy paste to a half pint of mayonnaise dressing, stir in a tablespoonful of tomato catsup, ten drops of Worcestershire sauce and 2 drops of Tabasco. Use with broiled or fried fish.

### FRENCH DRESSING

½ tsp. salt,
⅛ tsp. white pepper,
Dash paprika,
1 tbsp. vinegar (malt or Tarragon preferred),
3 tbsp. Mazola or other veg. oil.

Mix the seasonings and stir into the oil. Add the vinegar and beat vigorously till the mixture thickens slightly.

Green salads should be dressed at the time of serving. The flavor is improved if the bowl in which the salad is arranged is rubbed with a clove of garlic or slice of onion.

### A—1 SALAD DRESSING

Mix ⅛ teaspoonful of freshly ground pepper, ½ teaspoonful salt and one teaspoonful of prepared mustard. Then stir in 4 teaspoonfuls of Mazola, and when blended, add 1 tablespoonful of claret.

Serve it on any plain salad of lettuce, or a mixture of lettuce, chives and cucumbers. The lettuce should be washed several times, drained and wrapped in a napkin and laid on the ice until chilled and crisp. Do not slice the cucumbers nor chop the chives until just before serving.

Put the salad into a bowl in any preferred way, the lettuce arranged like an open head with a sprinkling of chives and a border of sliced cucumbers overlapping, or have the cucumbers diced and heaping in the center and the lettuce for a border. Add the dressing when serving, as the vegetables wilt quickly after the dressing is blended with them.

### HOLLANDAISE SAUCE

Beat the yolks of 4 eggs and beat in gradually ½ cup Mazola or other vegetable oil. Add ¼ teaspoonful salt, dash of paprika and ½ cup boiling water. Cook over hot water, stirring constantly until thick, adding gradually the juice of ½ lemon. Chill before using. Serve with fish, or a fish salad.

### SAUCE TARTARE

Make a mayonnaise dressing, using Tarragon vinegar. To each cup of dressing add 1 shallot, or small onion, chopped fine, 2 tablespoonfuls each of finely chopped capers, olives and cucumber pickles, 1 tablespoonful chopped parsley and ¼ teaspoonful powdered Tarragon.

### GREEN MAYONNAISE

This is used frequently for apple salad, and is made by adding 2 or 3 drops of apple coloring to ordinary mayonnaise, or it may be colored by adding finely chopped parsley rubbed to a paste.

### ITALIAN DRESSING

Rub the mixing bowl with a clove of garlic, add the salt, Tabasco sauce, a teaspoonful of tomato catsup and stir until well mixed. Add 6 tablespoonfuls of Wessen oil or other vegetable oil, a teaspoonful of grape or Tarragon vinegar; beat thoroughly and pour at once over sliced tomatoes on lettuce leaves. Serve with fried or broiled fish or lobster cutlets.

### WALDORF SALAD

2 cups hard tart apples (chopped),
1 cup celery (cut fine),
1 cup English walnuts (chopped).

Mix with French dressing or mayonnaise dressing made of vegetable oils.

### COMBINATION FRUIT SALAD

1 grape fruit,
2 oranges,
1 banana,
1 cup Malaga grapes.

Pare the oranges and grape fruit and remove from pulp in sections, slice the banana and cut grapes in half and remove seeds. Mix with ½ cup sugar and set on ice for ½ hour. Arrange on lettuce leaves and put a tablesponful of mayonnaise on the top of each salad.

### CHERRY SALAD

Stone carefully large red cherries, arrange them neatly on crisp lettuce leaves, pour over French dressing made of vegetable oil and serve.

### GRAPE FRUIT SALAD

Pare the grape fruit, remove the white skin, and with a sharp knife take out the carpels, keeping them whole. Dish on Romaine or lettuce leaves, baste with French dressing and serve.

### CELERY AND GRAPE FRUIT SALAD

Cut the fruit in thirds lengthwise, remove the pulp and cup up with an equal amount of crisp celery. Refill the shells with this mixture and garnish with celery tips. Serve with mayonnaise dressing.

### DATE SALAD

½ lb. dates,
2 slices pineapple,
¼ cup chopped walnuts or pecans.

### ORANGE AND SMALL ONION SALAD

Slice oranges and place small slices of tiny onions on the orange. Serve with French dressing.

### PINEAPPLE AND CHEESE SALAD

Place large-sized slices of canned pineapple on crisp lettuce leaves and cover pineapple with Star Brand White Cheese or Neufchatel cheese forced through the potato ricer, and serve with French dressing. Garnish with olives or Maraschino cherries.

### WHITE SALAD

½ cup chopped celery,
½ cup shredded cabbage,
½ cup nut meats,
2 slices pimento,
2 cups water,
4 tsp. gelatine,
2 tsp. lemon juice,
2 tsp. sugar,
2 tsp. salt.

Make a liquid lemon jelly, add celery, cabbage, nuts and pimentos, mold, serve on white lettuce leaf with white salad dressing. In absence of white lettuce, salad may be garnished with parsley, cabbage leaf or celery.

### BANANA SALAD

3 bananas,
½ cup chopped nuts.

Peel bananas, cut in halves and fourths and place 2 pieces on crisp lettuce leaves, and sprinkle ground nuts over bananas and serve with mayonnaise dressing.

### ASPARAGUS SALAD

Dish a bunch of well-boiled asparagus on a cold platter, pour over French dressing and serve.

### STRING BEAN SALAD

Arrange carefully cooked string beans over lettuce leaves. Pour over carefully prepared Italian salad dressing and use at once.

### CABBAGE SALAD

Cut a hard head of cabbage into halves and then with a cabbage cutter or sharp knife shred fine the desired quantity. Cover with ice water and soak for two hours, changing the water once or twice. At serving time, shake and dry cabbage in a towel, toss it lightly in the salad bowl. Pour over a well-made French dressing. Mix thoroughly and serve at once. This is one of the nicest of all the winter dinner salads. Chopped celery or celery seed may be added as preferred.

### CHIFFONADE SALAD

This salad is made by mixing all green vegetables in season, and is frequently called "The French Salad." Lettuce, dandelion, chicory, a little chopped beet, chopped celery, a bit of tomato are mixed and covered with French dressing. The dressing is usually flavored both with onion and garlic.

### BOHEMIAN SALAD

Cover the bottom of the salad bowl with crisp Romaine or lettuce; arrange over the alternate slices of hard-boiled egg and boiled beets. Sprinkle with finely chopped onion, cover with Italian or French dressing, toss and serve.

### LETTUCE SALAD WITH CHEESE BALLS

2 pkgs. Neufchatel cheese,
½ tsp. onion juice,
2 tbsp. lemon juice,
1 tbsp. parsley,
2 tbsp. pecans, chopped,
¼ tsp. salt,
⅛ tsp. paprika.

Mix all the seasonings with the cheese, make into small balls with butter paddles and serve with head lettuce covered with French dressing. For variation do not put the parsley into the

balls, but chop more of it very fine and roll the balls in it very lightly.

### GREEN PEPPER AND PIMENTO CHEESE SALAD

Stuff green peppers with pimento cheese, slice and lay on lettuce leaves, serve with French dressing.

### SWEETBREADS SALAD

Plunge a pair of sweetbreads into cold water as soon as they come from the market, and let stand 1 hour. Drain and put into salted boiling water to which has been added ½ tablespoonful of vinegar and cook slowly 20 minutes. Again drain and plunge into cold water, that they may be kept white and firm. Cut in ½-inch cubes and mix with an equal measure of cucumber cut in ½-inch cubes. Season with salt, pepper and paprika and moisten with dressing. Arrange in nests of lettuce leaves. For the dressing beat ½ cup of heavy cream until almost stiff, using an egg beater. Add 3 tablespoonfuls of vinegar very slowly, continuing the beating until mixture is stiff; season with salt, pepper and paprika.

### CHICKEN SALAD

Use by measure twice as much chicken as celery. Cut the chicken in small cubes; do not chop it, and mix with French dressing. When ready to serve drain, add celery and mix with mayonnaise dressing. If boiled dressing be used, mix the chicken with part of that, adding more when ready to serve. Mayonnaise dressing can be used alone without French dressing if preferred.

### FISH SALAD

Remove skin and bone from 1 can salmon. Mix with ½ cup finely cut celery and hard cooked eggs and cooked salad dressing, or mayonnaise, and serve on a bed of lettuce.

### LOBSTER SALAD

Mix cold boiled lobster with nicely seasoned mayonnaise dressing, and serve on lettuce.

### CRAB SALAD

Mix crab flake with mayonnaise dressing and serve on lettuce leaves.

## POTATO SALAD

4 medium-sized cold boiled potatoes, 4 hard cooked eggs, 1 red onion.

Cut potatoes into small, thin slices, add chopped onion and egg cut in quarters and sliced, moisten well with cooked salad dressing, to which cream has been added. Serve on lettuce and garnish with slices of egg.

## TOMATOES EN SURPRISE

Peel small, solid tomatoes, cut off the stem and remove the core and seeds. Fill the tomato with crab flakes, put over a teaspoonful of lemon juice and turn them upside down on crisp lettuce leaves, cover with mayonnaise dressing and send to the table. Sardines may be substituted for crab flake.

## TOMATO ASPEC JELLY

Stew 1 quart can of tomatoes until soft, cutting and mashing the pulp to hasten the process. Flavor by stewing with them ½ teaspoonful of mixed whole spices, 2 level teaspoonfuls of celery salt and 1 small Bermuda onion. Strain the tomato through puree strainer, and, if needed, add boiling water to make 2 cups of juice. Have ready ½ box of gelatine soaked in ½ cup of cold water until soft. Heat the tomato juice to boiling and add the soaked gelatine, stir until dissolved and strain it through fine cheese cloth. Pour it into ring mold, or into small cups or fancy molds, which have been first wet in cold water. Chill, and when firm and ready to serve, turn out on a nest of lettuce leaves and spread on top with mayonnaise dressing.

## STUFFED TOMATO SALAD

Peel medium-sized tomatoes, remove thin slice from top of each, take out seeds and part of pulp, sprinkle inside with salt. Fill tomatoes with pineapple, cut in small cubes or shredded, and nut meats, using ⅔ pineapple and ⅓ nut meats. Mix with mayonnaise dressing, garnish with mayonnaise, halves of nut meats and slices cut from tops, cut square. Serve on a bed of lettuce leaves.

Any of the following mixtures may be substituted for the pineapple and nuts:

Cubes of cucumber with tomato pulp mixed with boiled salad dressing or mayonnaise. Apple and celery mixed with any salad dressing. Shredded cabbage and green pepper mixed with boiled dressing or mayonnaise.

K. S. A. C.

## FROZEN TOMATO

2½ cups tomato juice,
8 pepper corns,
1½ tsp. salt,
3 bay leaves,
6 cloves.

Add spices to tomato, bring to a boil, and boil 1 minute. Press through a sieve and freeze as an ice. Serve with boiled salad dressing or mayonnaise.

K. S. A. C. Cook Book.

## SOY BEAN SALAD

One cup soy beans cooked and drained. Add one small onion chopped, 4 small sour pickles, paprika and celery seed, or ¼ cup chopped celery. Serve with a boiled dressing.

# Sugar Substitutes

Americans eat more sugar than other folks do; more than is really good for them. We have been using 4 ounces a piece daily, other people half as much, and now our allies are down to 1 ounce a day or less.

One ounce a day (2 tablespoonfuls or 6 teaspoonfuls), that is all it takes to make a stock of 1,185,000 tons this year for our army and our allies. Saving that ounce a day is part of your war service.

U. S. Food Administration.

**Your principal way of substituting for sugar is the diet.**

1. All the ripe fruits contain sugar. The amount varies from about 3 ounces or 6 tablespoonfuls per pound in fresh figs and plums to about ½ ounce per pound in watermelon.

2. Dried fruits: If the water is driven off from fruits as in the drying process, the sugar becomes more condensed than it is in fresh fruits.

3. Syrup may replace sugar in most recipes; give the children syrup, honey, molasses, preserves. It is better for them than candy.

Sorghum molasses ---------- 1½ cups is equiv. 1 cup sugar.
Corn molasses ---------- 1⅔ cups is equiv. 1 cup sugar.
Honey ---------- 1⅕ cups is equiv. 1 cup sugar.
Maple syrup ---------- 1½ cups is equiv. 1 cup sugar.

4. Add more salt to cereals in cooking them. This saves the amount of sweetening necessary at time of serving.

Note: 1. When using honey in place of molasses in any recipe, use less soda, according to the acid in the honey. When in doubt use less. 2. Do not substitute vegetable syrups or preserves in the regular diet of the child. These are lacking in vitamines or "growth determiners," which are absolutely vital to the physical development of the child. Butter, eggs and fresh fruits are rich in vitamines and are essential. 3. To replace 1 cup sugar by 1¼ cups molasses, subtract ¼ cup from the liquid called for in the recipe. See table of syrups composition and apply to other syrups.

**To test the stages of syrups in candy cooking.**

These tests are made by dropping a small portion of the syrup

into cold water. Each stage or test corresponds to a definite temperature as indicated by the thermometer.

Soft Ball—When mixture will make up into soft ball, 236° F. or 113° C.

Hard Ball—When mixture forms a firm, or rather hard, ball, 230° F. or 123° C.

Soft Crack—When mixture becomes crisp and too hard to form a ball, 260° F. or 127° C.

Hard Crack—When mixture will crack or break when crushed between fingers, 290° F. or 143° C.

Caramel—A fifth stage is known as the caramel stage. This may be reached by boiling the syrup beyond the hard crack stage or by melting dry sugar over direct heat. The test for this stage is a golden color, 348° F. or 176° C.

## EAT LESS SUGAR

**Mary E. Robinson**

**Missouri University**

The average American eats approximately 90 pounds of sugar a year. This includes not only the amount eaten at the regular meals, but also that taken between meals in the forms of candy, cakes, ice creams and soft drinks.

Sugar is used as a source of energy for the body. When eaten in excess, it tends to ferment and cause digestive disturbances. The average amount of sugar which may be eaten by an adult per day is four tablespoonfuls or four tablespoonfuls of honey, 3½ tablespoonfuls of syrup or four tablespoonfuls of molasses. However, soldiers on long marches, athletes or school children may use more sugar in the diet than less active persons of the same size and weight. In the case of children there is danger that in eating too much sugar, especially in the form of candy, the appetite will be dulled for more wholesome foods and a lack of mineral matter in the diet will result.

The following table gives the composition of the sugars and syrups in common use:

| | Water Per cwt. | Protein Per cent | Fat Per cent | Mineral Salts Per cent | Fuel value in calories per lb. | Total Carbohydrates Per cent |
|---|---|---|---|---|---|---|
| Sugar—Gran. (cane or beet) | | | | | 1814 | 100 |
| Sugar—brown | | | | | 1723 | 95 |
| Sugar—powdered | | | | | 1814 | 100 |
| Sugar—maple | 5. | | | | 1685 | 93 |
| Syrup—maple | 34.2 | | | | 1160 | 64 |
| Molasses—cane | 25.1 | 2.4 | | 3.2 | 1300 | 69.3 |
| Syrup—corn | 19.0 | | | 0.5 | 1468 | 80.5 |
| Sorghum | 28.6 | | | 4.0 | 1154 | 63.3 |
| Honey | 18.2 | .4 | | 2. | 1470 | 81.2 |

Sherman's Food Products

## SUGGESTIVE METHODS FOR THE CONSERVATION OF SUGAR

1. No adult should eat more than 4 tablespoonfuls of sugar per day. A part of this amount may be in the form of honey, syrup or any other sweet.

2. Reduce to a minimum the amount of sugar used in beverages. Many beverages are served sweeter than they need to be, and sugar is often left in the cup or glass in which they are served.

3. If cereals are prepared carefully, salted and thoroughly cooked, they will be palatable without the addition of sugar. If the sweet taste is desired, sweeten the cereals with fruit, rather than sugar. (Ex. oatmeal and raisins or dates.)

4. Use recipes calling for less sugar, especially for cakes and other desserts; substitutes, corn syrup, sorghum, honey, apple syrup, and other fruit syrups for the sugar.

5. Use more fresh, dried and canned fruits and less sugar will be desired.

6. Omit rich, heavy desserts requiring sugar, such as puddings with rich sauces, iced cakes, sugar pies, etc.

7. When sugar is craved, eat fruits instead of candy, ice cream and soft drinks. Fruits will be better for the body and the substitution will render a patriotic service.

8. Give children fruit, fruit juice, fruit breads and fruit cookies instead of candy and rich cake.

## SUGARLESS CANDIES

It is almost impossible for American people to break themselves of the candy-eating habit. Therefore, at this time, some form of confection should be substituted which requires little or no sugar.

The following sugarless recipes are suggested:

### STUFFED DATES

Remove seed by splitting the fruit lengthwise. Fill the center with chopped nut meats or cherries and wrap in oiled paper.

### FRUIT SQUARES

Run equal parts of figs, raisins and dates through the food

chopper. Add ¼ the amount of cocoanut or nuts. Moisten with orange juice. Shape into balls or squares.

These may be dipped into melted chocolate or not, as desired. Dried peaches, apricots or prunes may be substituted for fruits given above.

## DRIED PINEAPPLE

Peel fruit and slice crosswise in very thin slices. Place in oven, the door of which is left open, or in a drying rack over the stove. Dry as for apples.

## SYRUP OR MOLASSES TAFFY

3 cups syrup or sorghum,
1 tbsp. butter,
1 tsp. vinegar.

Cook syrup until it forms a hard ball when dropped in cold water. Add one tablespoonful strong vinegar for flavoring. Pour on cold buttered or oiled platter. Allow to cool until it can easily be handled and pull until light.

## CARAMELS

2 cups sorghum or Karo syrup,
1½ squares chocolate,
½ cup cream or condensed milk,
2 tbsp. vinegar.

Cook until it forms a firm ball in cold water. Pour on buttered pan, and when cut in squares wrap in wax paper.

## FRUIT PASTE

Put through the meat chopper enough cherry, peach or quince preserves to make ½ pint with the juice. Heat fruit and add 2 tablespoonfuls of gelatine previously softened in a very little cold water. Stir well and continue stirring until it begins to cool and thicken, then pour into oiled dish to make a layer 1 inch thick. Let dry slowly, sprinkle with sugar and place in box with waxed paper between layers. A mixture of dried apricots and soaked over night in enough water to cover may be used for this paste. Pour off water, bring it to a boil, pour over apricots, and let stand until cool. Put apricots and dates through meat chopper and proceed with the proportions above.

## PASTE BONBONS

Soak 1 ounce of gelatine in ½ cup of water, add to hot syrup; makes 2 cups hot corn syrup. Take from fire, add 2 teaspoonfuls each of lemon and orange juice and 1 of rum or brandy, and if for mint bonbons, add also 2 teaspoonfuls of creme de menthe and 2 drops of spearmint and color green; if for fruit, color pink and add ½ cup each minced candied fruits, pecans or almonds. Turn into a wet pan ¾ of an inch thick, put on ice and in 12 hours turn out on board dusted with powdered sugar. Cut in squares and roll in sugar.

## BITTER SWEETS

An attractive variety of candies may be made by dipping sweet fruits in bitter chocolate. Use for this purpose dates, citron, candied orange peel or crystallized fruit. Melt unsweetened chocolate in double boiler. Keep the chocolate just warm enough to prevent solidifying. With a fork drop pieces of fruit in chocolate. See that each piece is completely coated, then remove to waxed paper to harden.

## OLD-FASHIONED MOLASSES CANDY

2 cups molasses,
1 tbsp. vinegar,
2 tbsp. (1 ounce) butter sub.,
½ tsp. baking powder,
1 tsp. vanilla or ginger extract.

Put molasses, vinegar and butter into a sauce pan, bring to a boiling point and boil, stirring all the time until the mixture is brittle when dropped into cold water. Stir in baking powder and extract and pour into buttered tin. When nearly cold, pull until glossy. Cut into small pieces and lay on a buttered plate or wrap in waxed paper. Sufficient for 1 pound of candy.

## PEANUT BRITTLE

2 cups New Orleans molasses, 1 cup roasted peanuts.

Cook molasses until it cracks when dropped in cold water, caramel stage; have ready the peanuts rolled fine, stir in, pour on oiled marble slab, roll with flat blade of knife as it cools; this should harden in the thin sheets.

## POPCORN CANDY

1 cup syrup,
2 qts. of popped corn,
1 tbsp. vinegar.

Boil together the syrup and vinegar until it hardens when dropped in cold water. Pour over freshly popped corn and mold into balls or fancy shapes for the Christmas tree. Little popcorn men will please the children. Mark in the features and outlines with melted chocolate.

Either honey, maple syrup, molasses, white cane syrup or corn syrup may be used.

U. S. Food Administration.

## PLAIN HONEY TAFFY

1 cup sugar,
1 cup honey,
⅓ cup water,
1 tsp. vanilla.

Boil the honey and sugar together until the mixture makes a hard ball in cold water (270° F.). Add vanilla or other flavor if desired. Put in a buttered dish to cool and pull until white. If the pan the honey is cooked in is buttered around the top the honey will not boil over on the stove. It is possible to vary these proportions widely and always get a delicious taffy.

## HONEY CANDY WITH PEANUTS

2 cups honey,
1 cup butter,
1 cup boiling water,
Pinch salt.

Boil to a hard ball, and pour over layer of rolled peanuts which have been scattered evenly over the bottom of a buttered pan. When nearly cold, mark off in long strips and roll up tight, then slice across with a sharp knife before it gets quite cold. This recipe may be varied by adding 1 or 2 cups of sugar when it has cooled slightly; stir in 1 or 2 teaspoonfuls peanut butter to suit taste, keep stirring until creamy, pour into buttered pan, mark in squares.

## HONEY BUTTER SCOTCH

3 h. tsp. butter,
¼ tsp. soda,
2 tbsp. vinegar,
2 cups honey,
2 tsp. lemon extract,
2 cups brown sugar.

Boil the honey, butter and vinegar until it hardens when dropped

into water (270° F.), stir in the soda and extract; pour in buttered tins to cool.

### HONEY CHOCOLATE CARAMELS

½ lb. cocoa,
2 cups honey,
1 tsp. vanilla,
¾ lb. pecan nuts,
2 lbs. sweet almonds.

Cut the nuts fine and boil them with other ingredients until thick (260° F.), cool and roll out, cut in squares and dry in oven.

### CHOCOLATE HONEY TAFFY

1 piece chocolate, inch square,
1 cup honey,
⅓ cup sugar,
1 tsp. vanilla.

Boil until it makes a hard ball in cold water (270° F.). Add vanilla and put in a buttered dish to cool. Pull until light.

### CAKES

Bake only those cakes in which syrup may be substituted for sugar. Vegetable fat or oil for butter. A part other cereal flours for wheat flour.

Do not use frostings unless you can make them without sugar.

The following table was worked out by Mary E. Robinson in Missouri University.

This standard recipe may be varied by adding 3 squares of chocolate to make a devil's food cake, or the flavor may be changed by adding spices, nuts, fruit, etc.

Mary E. Robinson,
University of Missouri.

Note: Remember that any cake or other food containing molasses is very apt to burn rapidly. A moderate oven is one that will brown a paper a cinnamon brown in 5 minutes.

## SUBSTITUTES FOR GRANULATED SUGARS IN CAKE

| | Flour | Fat | Syrup | Eggs | Liquid | B. Powder |
|---|---|---|---|---|---|---|
| | Standard Recipe 3 cups | ½ cup | 1½ cups Gran. Sugar | Whites 4 or 2 whole eggs | 1 cup | 2 tsp. |
| X | Substituting Sorghum 3 cups | ½ cup | 1½ cups Sorghum | Whites 4 or 2 whole eggs | 2/3 cup | 2 tsp. |
| XXX | Substituting Karo 3 cups | ½ cup | 1 1/5 cups Karo | Whites 4 or 2 whole eggs | 4/5 cup | 2 tsp. |
| XX | Honey 3 cups | ½ cup | 1½ cups Honey | Whites 4 or 2 whole eggs | 4/5 cup | 2 tsp. |
| | Maple Syrup 3 cups | ½ cup | 1½ cups Maple | Whites 4 or 2 whole eggs | 2/3 cup | 2 tsp. |

**X** add 1 teaspoonful soda for each cup Sorghum.

**XX** add ¼ teaspoonful soda for each cup Honey.

**XXX** when Karo syrup is substituted in cakes as given above the cake will not be as sweet as if granulated sugar is used, but the food value will be the same. If a sweeter cake is desired the amount of Karo used may be increased to two cups and the liquid decreased accordingly.

## WAR CAKES

### No 1—EGGLESS, BUTTERLESS, MILKLESS CAKES

A good cake from the standpoint of thrift when eggs are selling at 70c per dozen, butter 59c a pound, milk 13c per quart.

½ cup veg. fat or oil,
¼ of grated nutmeg,
1 tsp. cloves,
1 tsp. cinnamon.
1 cup sugar,
1 cup water,
1 cup raisins,
Pinch salt,

Put all in sauce pan and boil 3 minutes, then cool and stir in 1 level teaspoonful of soda dissolved in a little warm water; add 2 rounding cups of flour into which 1 teaspoonful baking powder has been sifted. Bake in slow oven.

Mrs. Randel.

### No. 2—EGGLESS, BUTTERLESS, MILKLESS AND SUGARLESS

1 cup good molasses,
½ tsp. soda,
1 cup hot water,
(Mix with molasses),
1 tsp. cinnamon,
1 tsp. cloves,
Ginger and nutmeg (small quantity).

Mix thoroughly, add ½ package raisins, nuts and other fruits if desired. Now mix in enough flour to make a soft batter, add one teaspoonful baking powder and flour, bake in loaf in very slow oven until it will not stick to straw; should be eaten while fresh. The above recipe is excellent.

### No. 3—EGGLESS, SUGARLESS, BUTTERLESS CAKE

2 cups molasses (dark),
2 tbsp. veg. oil,
1 cup water,
1 tsp. cinnamon,
Pinch nutmeg and cloves,
Salt.

Boil 3 minutes. When cool stir in 1 teaspoonful of soda dissolved in a little water.

1 box raisins,
3 cups flour.

Nuts may be added. Bake in slow oven.

Mrs. C. Bruno,
Wellston.

### BARLEY AND OATMEAL CAKES

½ cup shortening,
¼ cup brown sugar,
½ cup corn syrup,
1 egg,
3 tbsp. water,
2 level tsp. Rumford baking powder,
½ level tsp. salt,
1¼ level cup rolled oats,
⅓ cup chopped nuts.

METHOD: Cream the shortening and sugar together. Add

the well-beaten egg. Add the syrup and water alternately with the flour, in which the baking powder and salt have been sifted. Add the oats and nut meats. Drop by teaspoonful upon well-greased baking sheets. Bake in moderate oven 12 to 15 minutes. Always bake a test cookie first to be sure the mixture is the right consistency.

### OATMEAL DROPS

¾ cup butter sub.,
2 cups rolled oats,
1 cup flour,
1 cup corn syrup,
1 cup chopped raisins,
1 tsp. soda dissolved well in ¼ cup boiling water,
A pinch of salt.

Mix all together and drop on hot buttered tins.

### SPECIAL OATMEAL CAKES

1½ cups flour,
½ cup cooked oatmeal,
¼ cup sugar,
¼ cup raisins,
¼ cup molasses,
¼ tsp. soda,
½ tsp. baking powder,
3 tbsp. veg. oil,
½ tsp. cinnamon.

Beat molasses and fat to boiling. Mix with all the other ingredients. Bake in muffin pans 30 minutes. This makes 12 cakes.

U. S. Food Administration.

### OATMEAL COOKIES

1 tbsp. butter sub.,
1 egg,
½ cup milk,
¼ cup sugar,
1½ cups oatmeal (fine),
1 cup flour,
3 tsp. baking powder,
½ tsp. salt,
1 tsp. flavoring.

Cream together lard, egg and sugar, add milk, oatmeal and the flour to which the salt and baking powder have been added, add flavor and raisins that have been powdered with flour. Drop on an oiled pan and bake in moderate oven.

Elizabeth Mount Walker,
5165 Cabanne.

### DATE OATMEAL WAFERS

2 cups rolled oats,
2 cups flour,
1 tsp. salt,
¼ cup shortening,
¼ cup sugar,
½ cup water.

Cream shortening, add sugar, water, and then add remaining ingredients. Roll out very thin, cut, and bake in a moderate oven.

## CORN MEAL COOKIES

½ cup melted fat,
½ cup molasses,
½ cup corn syrup,
1 egg,
6 tbsp. sour milk,
½ tsp. soda,
2 cups corn meal,
1 cup wheat flour.

Combine the melted molasses, fat, syrup, beaten egg and milk. Sift the dry ingredients and combine with the liquid. Drop from a teaspoon onto a greased pan and bake in a moderate oven for 15 minutes. This makes 55 to 60 cookies about 2 inches in diameter.

U. S. Food Administration.

## CORN MEAL GINGERBREAD

1 cup corn meal,
1 cup wheat flour,
1 tsp. soda,
¾ tsp. salt,
2 tsp. ginger,
1 egg (omitted if desired),
1 tsp. cinnamon,
½ tsp. cloves,
1 cup sour milk,
1 cup molasses,
2 tbsp. shortening.

Sift together the dry ingredients. Combine the milk, molasses, melted shortening and beaten egg. Add the liquid ingredients to the dry, stir well. Bake in moderate oven. Two cups of buckwheat may be substituted for the corn meal in the above recipe. This will have the characteristic flavor of buckwheat. If it is too strong use only 1 cup of buckwheat and 1⅛ cups of white flour; 2½ cups of rye flour may also be substituted. In using rye and white flour a larger quantity is necessary because these flours absorb less liquid than do the corn meal and the buckwheat.

U. S. Food Administration.

## MAPLE GINGERBREAD

¼ cup shortening,
1 egg,
1 cup maple syrup,
½ tsp. ginger,
¼ cup water,
2 cups flour,
½ tsp. soda,
½ tsp. salt.

Cream shortening, add beaten egg, mix syrup and water and add gradually to the first mixture. Sift dry ingredients and add gradually. Pour into shallow, greased pans and bake 25-30 minutes in a moderate hot oven.

Miss Ella D. Rode,
Domestic Science Instructor, Patrick Henry School.

## COTTONSEED MEAL GINGERBREAD

1 cup molasses,
1 cup sour milk,
1 tsp. soda,
1¼ tsp. baking powder,
2 tsp. ginger,
1 tsp. cinnamon,
½ cup fat,
1 egg,
¾ cup cottonseed meal,
1¾ cups flour.

Mix and bake in slow oven.

U. S. Food Administration.

## BRAN COOKIES

3 cups bran,
½ cup sugar,
½ cup molasses,
½ cup milk,
½ cup veg. oil,
1 tsp. ginger,
½ tsp. cinnamon,
½ tsp. soda.

Sift dry spices with bran and mix, add other ingredients and mix thoroughly. Drop from spoon upon oiled pan. Bake 15 minutes.

Oswego College War Recipes.

## OATMEAL ROCKS

Put 2 cups of oatmeal,
1½ cups seeded raisins,
1 cup English walnut meats through meat grinder, add
1 cup black walnut meats,
½ cup whole pecans,
Small quantity flour, if needed,
½ cup sugar,
⅝ cup corn syrup,
1 cup veg. oil,
2 well-beaten eggs,
1 tsp. soda,
5 tbsp. sweet milk,
1 tbsp. vanilla.

Drop from spoon on greased tin, bake in moderate oven; will keep for a long time in earthern jar covered.

Federated Clubs' Calendar.

## COFFEE CAKE

1 cup brown sugar,
1 cup molasses,
1 cup cold coffee,
1 cup raisins,
1 cup veg. oil or butter sub.,
1 tsp. soda,
1 tsp. baking powder,
Spices to taste.

And whole wheat flour to make a rather stiff batter.

## BARLEY COFFEE CAKE

2 level cups sifted barley flour,
1 level cup sifted white flour,
¾ cup sugar,
1 level tsp. salt,
4½ level tsp. baking powder,
1 level tsp. round mace or cinnamon,
1 cup small raisins,
1½ cups milk or water,
3 tbsp. melted veg. fat or oil,
1 egg.

METHOD: Sift the dry ingredients 3 times, add the raisins, milk, egg and shortening and mix thoroughly. Place in shallow pans, sprinkle with sugar and cinnamon and let stand undisturbed 5 minutes. Bake in a moderate oven about 20 minutes. This will fill 3 twelve-inch pans.

## CINNAMON CRUMB CAKE

2 cups flour,
8 level tsp. baking powder,
¼ cup water and ½ cup milk (enough to make a very stiff dough),
½ tsp. salt,
4 tbsp. veg. oil (Mazola),
2½ tbsp. sugar.

Mix dry ingredients thoroughly, then add oil and mix again. Finally add liquid and put in oven to bake 20 minutes. To make the crumb covering, 2 tablespoonfuls flour, 4 tablespoonfuls sugar, 1 teaspoonful cinnamon and enough Mazola to make it easy to spread.

Mrs. R. E. Eggebrecht.

## CORNFLAKE COOKIES

2¾ cups corn flakes,
1 cup ground peanuts,
1 cup sugar,
2 eggs, beaten separately.

Add 2 parts together, add peanuts, then cornflakes; work it slowly; make balls and drop on buttered pans. Bake in hot oven 10 minutes. Put under broiler flame a second to brown.

Mrs. O. K. Bovard.

## INDIAN MEAL DOUGHNUTS

¾ cup milk,
1¼ cups very fine white corn meal,
1½ cups wheat flour,
¼ cup Crisco (veg. oil),
2 eggs, well beaten,
1 tsp. cinnamon,
2 tsp. baking powder,
1 level tsp. salt,
1 cup corn syrup.

Put milk and meal into a boiler and heat together for about 10 minutes, add the butter and syrup to the meal, sift together the wheat flour, baking powder, cinnamon and salt. Add these and the eggs to the meal. Roll out on a well-floured board, cut into the desired shapes, fry in deep fat, drain and roll in powdered sugar. This makes 30 medium-sized doughnuts.

## GRANDMOTHER'S DOUGHNUTS

3 tbsp. veg. oil,
1 cup molasses,
1½ cups sweet milk,
2 eggs,
3 cups flour,
¼ cup cornstarch,
3 tsp. baking powder.

Stir the Mazola into the molasses and the milk and the eggs well beaten, sift the flour, cornstarch and baking powder together, stir into the first mixture, beating well. Add enough more flour to make a soft dough. Roll out and fry in Mazola.

## HONEY DROP COOKIES

¾ cup honey,
¼ cup fat,
1 egg,
2½ cups barley flour,
½ tsp. soda,
1 tsp. baking powder,
½ tsp. salt,
1 cup raisins,
1 tsp. vanilla.

Heat honey and fat together to combine. Cool and add eggs. Sift dry ingredients. Mix well and add the raisins; a little water will probably be necessary to make a drop dough of this mixture (about 2 tbsp.). Drop by teaspoonfuls on a well-greased sheet and bake in a moderate oven.

## PEANUT DROP COOKIES

The constituents are the same as for oatmeal drop cookies, with the substitution of 2⅓ cups of ground peanuts for the rolled oats and nuts called for. Combine and bake in same way.

## GINGER SNAPS

1 cup sorghum,
½ cup fat,
1½ cups rye flour,
1½ cups barley flour,
½ tsp. soda,
1 tsp. baking powder,
1 tsp. salt,
1 tsp. ginger.

Combine the fat and the syrup. Sift the dry ingredients and add to the above mixture. When thoroughly chilled this should form a stiff dough. If it does not, add more flour. Roll thin and cut out with a small biscuit cutter. Bake in a moderate oven until a delicate brown.

# PUDDINGS

## STEAMED BARLEY PUDDING

1 cup sour milk,
1 cup molasses,
1 egg,
1 tsp. soda,
¾ cup corn meal,
1 cup barley flour,
¼ tsp. salt,
1 cup chopped raisins.

Beat egg; add molasses, milk and soda dissolved in a little cold water. Sift corn meal and barley together and combine with first mixture. Add chopped raisins and pour into well-greased baking powder tins. Steam two hours. Serve with a fruit sauce.

**Try One When You Have a Light Dinner or Supper**

### OATMEAL BETTY OR BROWN PUDDING

2 cups cooked oatmeal,
4 apples cut up small,
½ cup raisins,
½ cup sugar,
¼ tsp. cinnamon,
½ cup molasses.

Mix and bake for one-half hour. Serve hot or cold. Any dried fresh fruits, dates, or ground peanuts may be used instead of apples. Either will serve five people.

U. S. Food Administration.

**Here is a Delicious Corn Meal and Milk Dessert**

### INDIAN PUDDING

4 cups milk (whole or skim),
¼ cup corn meal,
¾ tsp. salt,
1 tsp. ginger.

Cook milk and meal in a double boiler 20 minutes, add molasses, salt and ginger. Pour into buttered pudding dish and bake two hours in a slow oven or use your fireless cooker. Serve with milk. This makes a good and nourishing dessert. Serve six.

U. S. Food Administration.

**Eat Bananas.**—Do you know that bananas are great producers of energy? Bananas are peculiar in combining the sweet quantities of the fruit with the nourishing quantities of the vegetable. On account of the presence of so much nutriment and because bananas grow so luxuriantly, it is stated that a given area of ground will support a greater population if planted to bananas than if planted to wheat. Do you know there is a banana flour?

### BANANA PUDDING

1 cup flour,
¼ tsp. salt,
1 tbsp. sugar,
1 tbsp. lemon juice,
3 bananas,
1 egg,
¼ cup milk.

Mix and sift dry ingredients, add milk, egg beaten well, lemon juice and then the bananas put through a sieve. Heat mixture well, put into a greased pan and bake in a moderate oven 30-45 minutes. Serve with lemon juice.

Miss Ella D. Rode,
Domestic Science Instructor, Patrick Henry School.

## 1.—DATE PUDDING

1 cup sour milk,
2 cups graham flour,
⅓ cup brown sugar,
1 tbsp. melted butter,
1 tsp. soda,
⅓ cup molasses,
⅛ tsp. salt,
1 lb. dates.

Mix the milk, molasses, sugar and dates, which have been stoned and cut fine, add the unsifted graham flour, mixed with soda, and lastly the melted butter. Steam for 2 hours in pound baking powder cans. This pudding can be resteamed and served with lemon sauce.

Miss Leigh Harris,
Domestic Science Instructor, Yeatman High School.

## 2.—DATE PUDDING

Remove the seeds from half pound of dates, after picking over and stemming them. Boil half hour in three or four pints of water. Thicken with graham meal and cook slowly until meal is done, preferably over night in fireless cooker, pour into cups to cool. Sugar may be added to taste, but it is good without. Serve with whipped cream.

## 1.—RICE PUDDING

½ cup rice,
2 cups water,
½ tsp. salt,
⅓ cup molasses or honey,
¼ tsp. cinnamon,
¼ tsp. nutmeg,
¼ cup raisins,
¼ cup nuts (chopped).

Wash rice, boil 20 minutes in salted water, drain, mix rice and molasses or honey, add spices, nuts, raisins. If mixture is dry add ¼ cup water. Bake 20-30 minutes in moderate oven. Water drained from rice may be used as foundations for white sauces or soup or is very good for starching fine clothes.

## 2.—RICE PUDDING

Two quarts of fresh nice milk with half a teacupful of rice, one and one-half cups sugar, a little salt, with a sprinkling of nutmeg. Bake in very slow oven for three hours, stirring often so as to avoid burning; 4 eggs may be added to this pudding.

## CORN MEAL FIG PUDDING

½ cup corn meal,
¼ tsp. salt,
½ cup molasses,
3 cups milk,
½ cup finely chopped figs,
1 egg.

To rapidly boiling water add corn meal and salt and cook for 5 minutes. Mix the molasses, figs and egg and add to corn meal when partially cooked. Place in a buttered baking dish and bake 1½ hours, set in hot water in a moderate oven. Dates may be used in place of figs.

Hilda Z. Rollman,
Domestic Science Instructor, Cote Brilliante School.

## FIG PUDDINGS

One-fourth pound figs chopped fine, two cups bread crumbs, one cup brown sugar, one-fourth pound suet chopped fine, two eggs, the grated rind and juice of one lemon, one dessert spoonful of molasses, one-half grated nutmeg, one tablespoonful flour. Steam three hours and serve with boiled sauce, flavored with lemon.

## PRUNE TAPIOCA

⅔ cup tapioca,
15 large prunes,
1⅔ cups corn syrup or 1⅓ cups honey,
½ tsp. salt,
¼ tsp. almond extract,
¼ tbsp. orange extract,
½ cup pecan nuts.

Soak prunes and tapioca in twice enough water to cover (soak prunes over night), stone and chop the prunes, add enough water to the drained-off liquid to make four and one-half cups. Bring this to a boil, adding prunes, syrup, tapioca, salt. Cook in double boiler for forty minutes. Add flavoring and nuts. Serve cold with sauce. This is a very nutritious dish for children.

## HONEY BLANC MANGE

Half a cup of honey, four heaping tablespoonfuls of cornstarch, a quarter of a cup of cold milk, two cups of scalded milk and a pinch of salt. Moisten the cornstarch with the cold milk, then add scalded milk and stir until it boils for 8 minutes, then add the salt and the honey. Divide into small wet molds to cool. Turn out, sprinkle a few chopped nuts over the top and serve with cream. Maple syrup may be used instead of the honey.

## JELLY APRICOTS

Heat four cups of cooked dried apricots and their juice to the boiling point, add 1⅔ cups of syrup, molasses, and stew for ten minutes. Then add 2 tablespoons of gelatine softened in a quarter of a cup of water and 2 tablespoons juice. Turn into wet mold, stiffen and serve with apricot whip.

To make apricot whip, mix half cup of sifted cooked apricot pulp, the white of three eggs, half tablespoon lemon juice and half cup of powdered sugar. Beat the mixture with a wire whisk until it will hold its shape, and serve immediately. If it is desired to keep it some time pile it into buttered ramekins, set in a pan of hot water and bake for twenty minutes in moderate oven. In this case it becomes an apricot souffle, and may be served either hot or cold with plain stewed apricots.

## STEAMED PLUM PUDDING

2 cups graham flour,
1 cup molasses,
1 cup sweet milk,
1 cup seeded raisins (ground),
1 tsp. soda,
1 tsp. salt, scant,
1 tsp. cinnamon,
½ tsp. cloves.

Steam 3 hours. Serve with lemon juice.

Mrs. J. B. Suddath.

## PUDDING SAUCES

### QUEEN SAUCE

2 eggs,
1 tbsp. butter sub. (veg. oil),
1⅔ cups Karo or maple syrup,
Juice of 2 lemons and rind,
1 cup water.

Stir together over fire (double boiler) until mixture thickens.

### STRAWBERRY SAUCE

Juice and pulp (crushed) of strawberries, add ½ cup sugar and eggs beaten separately, add to juice and sugar. Set over boiling water. Whip with egg beater until the sauce is foamy and thick as custard; serve with sponge cake.

### LEMON SAUCE

Boil together 1 cupful hot water and 1½ cups clear corn syrup for 5 minutes. Mix 3 heaping teaspoonfuls cornstarch mixed

with a little cold water, add to mixture. Cook until clear like honey, add 1 tablespoonful Troco. Stir until Troco melts.

### FOAMY EGGS

1 egg,
½ tsp. vanilla,
½ cup maple sugar,
½ cup whipped cream.

Beat egg white until stiff, beat in gradually the maple sugar powdered; when smooth and light, add vanilla and well-beaten yolks. Stir in whipped cream, serve at once.

### WHIPPED CREAM

1 cup double cream,
1 tbsp. sugar,
Flavoring.

Bowl and beater, as well as cream, must be thoroughly chilled. Cream to whip well should be 36 hours old.

Hard sauce should not be used during war period.

### BRER RABBIT CREOLE SAUCE

A delicious Southern sauce, used down South to give added zest to pudding of all kinds. Especially delicious with plum pudding.

Boil 1 cup Brer Rabbit Molasses and 2 tablespoonfuls of vegetable oil for about 5 minutes. Take from fire and add juice of two lemons.

### SOFT CUSTARD SAUCE

See soft custard.

## ICE CREAMS AND FANCY DESSERTS

### HONEY MOUSSE

2 cups whipped cream,
4 eggs,
1 cup honey.

Beat the yolks of the eggs well, and then beat the honey in gradually. Heat slowly until thick, stirring constantly; remove and cool, and then add the whites of the eggs that have been whipped to a stiff froth. Then add the whipped cream and blend all together. Pack in large quantities of ice and salt and freeze without stirring.

### SORGHUM GINGER MOUSSE

1 cup whipped cream,
3 tbsp. sorghum,
¼ preserved ginger, minced,
Few drops vanilla.

Whip cream, fold in syrup, ginger and flavoring. Pack in ice and salt to freeze. The strong flavor of the sorghum is objectionable to some, but it seems to blend very well with ginger. A small amount of dried ginger may be used, but the preserved ginger gives it a more desirable product.

### HONEY CUSTARD CREAM

2 cups milk,
2 tbsp. flour,
2 egg yolks,
⅓ cup honey,
2 well-beaten whites,
Few drops vanilla.

Bring milk and flour to boil, pour over the yolk and honey; cook over hot water until it thickens. This amount will serve six.

### MAPLE NUT PARFAIT

½ cup maple syrup,
2 egg whites,
Vanilla,
1 cup whipping cream,
¼ cup nuts.

Cook syrup to firm ball. Pour over the well-beaten whites. Beating well, when cool fold in the whipped cream; add nuts and flavoring. Pack in ice and salt to freeze without stirring. This amount will serve six.

### HONEY PARFAIT

½ cup honey,
2 eggs,
1 tsp. gelatine,
1 cup cream, whipped.

Soften the gelatine in the cold water and dissolve in hot water. Beat the yolks of the eggs and then heat the honey in gradually. Heat slowly with the gelatine until thick, cool. Add the well-beaten whites of the eggs and the whipped cream and freeze.

### SHERBETS

1 pt. fruit juice,
1 tsp. gelatine,
1 cup honey,
¼ cup cold water,
¼ cup lemon juice,
1 qt. water.

Dissolve the gelatine in the usual manner, softening in cold water and dissolving in boiling water. Stir in the honey rapidly, strain, cool and add the fruit juices. Boiling should cease as soon as the honey is added. Freeze as usual.

## DATE ICE CREAM

2 cups milk,
2 egg yolks,
3 tbsp. syrup,
2 beaten whites,
Few drops vanilla,
1 cup dates.

Scald the dates and remove seed. Cook in milk to soften and rub through strainer; mix the yolks and syrup and pour the hot-milk date mixture over it.

## FIG AU FAIT

2 cups black cooking figs,
1 cup whipping cream,
3 tbsp. honey,
⅓ cup nuts,
Few drops vanilla.

Wash figs well. Soak over night and cook until tender in water in which soaked. Cook down syrup and drain. Whip cream and sweeten with the honey and the syrup from the figs. Add vanilla. Pack cream to freeze without stirring. When frozen, open and repack in square mold, alternating layer of figs cut in halves with nuts and the frozen cream. Surround with ice and salt until needed.

## ORANGE MOUSSE

2 oranges,
1 cup honey,
1 tsp. powdered gelatine,
2 cups thick cream.

Peel and cut up the oranges, rejecting the white inner skin. Heat the honey over boiling water. Soak the powdered gelatine in a tablespoonful of water. Add the orange and the gelatine to the honey and stir for 5 minutes. Then remove it from the fire, and when cold add the cream, whipped stiff. Pack in ice and coarse salt (equal quantities) and let stand 3 or 4 hours. Pineapple or other fruit may be used instead of orange.

## AIRLINE ICE CREAM

4 cups thin cream,
¾ cup honey.
Mix and freeze.

## SAUCE FOR ICE CREAM

2 tbsp. butter,
2 tsp. cornstarch,
½ cup honey.

Cook together the cornstarch and butter thoroughly, being careful not to brown them. Add the honey and cook the mixture until it becomes hard when dropped into cold water, and until all taste of raw cornstarch has been removed.

Farmers' Bulletin 653.

## MENU FOR CONSERVATION LUNCHEON

Served at State Meeting Woman's Committee Council National Defense, by

**Miss Louise Stanley, Missouri University**

Wheatless, Meatless, Sugarless

Peanut Croquettes

Soy Bean Croquettes

Mashed Potatoes Spinach

Corn Muffins

Date and Cheese Salad Corn Flour Cheese Straws

Sorghum Ginger Parfait

Corn Flour Cookies Oatmeal Cookies

Coffee Served With Honey

### Peanut and Rice Croquettes

1 cup peanuts (ground),
⅓ cup cream sauce,
Salt,
1 cup rice (cooked),
¼ tsp. onion juice,
Pepper.

### Soy Bean Croquettes

1 cup beans (cooked and ground),
¼ tsp. onion juice,
Pepper,
⅓ cup thick cream sauce,
Salt.

### Corn Muffins

1⅓ cup corn meal,
1 tbsp. oil,
1 cup milk,
½ tsp. salt,
1 egg,
1½ tsp. baking powder.

### Corn Flour Cheese Straws

2 cups corn flour,
1 tsp. salt,
1 egg,
½ cup grated cheese,
2 tsp. baking powder,
5 tbsp. oil,
½ cup sweet milk.

Roll thin, brush with melted butter and sprinkle with grated cheese.

### Date and Cheese Salad

Pour boiling water over the dates to sterilize. Remove stones and stuff with a mixture of cottage cheese, nuts and pimento. Cured cheese may be substituted for the cottage cheese.

### Sorghum Ginger Parfait

1 pt. cream, whipped,
2 eggs, whites,
½ cup syrup,
½ cup candied or preserved ginger.

If preserved ginger is used, count the syrup as part of that used. Heat syrup and boil to thread, pour over well-beaten whites, beating well. Cool and fold in the cream. Pour in milk and pack to freeze.

### Oatmeal Cookies

3 cups oatmeal,
1 egg,
2 tsp. baking powder,
½ tsp. salt,
Flavoring,
1 cup honey,
⅓ to ½ cup fat,
Raisins or dates,
Nuts.

### Corn Flour Cookies

2¾ cups corn flour,
1 cup honey (or ⅔ cup molasses and ½ cup syrup),
1 egg,
¾ cup of the flour made into mush with ⅔ cup of water,
½ tsp. salt,
2 tsp. baking powder.
Flavoring or spices, (¼ tsp. cinnamon,
(¼ tsp. allspice,
(½ tsp. nutmeg.

One-third to ½ cup fat (depending on amount of liquid sweetening).

# Sterilization and Home Canning

In the preservation of foods by heat, it is necessary that a temperature be selected such that all organism capable of producing undesirable changes shall be destroyed, and yet no undesirable changes take place in the food itself. This means practically that the temperature selected should be just as low as is consistent with certain sterilizations.

Many articles of food are quite efficiently sterilized by being brought to the boiling temperature. Such are those that contain considerable quantities of acid, as do the fruits. In this case, the antiseptic and disinfectant action of the acid is so increased by the temperature of boiling water that it quite certainly sterilizes the food material. Foods containing a large proportion of sugars are also easily sterilized by boiling, in as much as the boiling temperature of a saccharine solution is much higher than 100° C. A concentrated solution of sugar, by its high osmotic pressure, also acts as a preservative. Vegetables such as corn and peas are much more difficult to preserve, in as much as they contain neither acid nor sugar in considerable quantities and are ordinarily infected with certain of the anaerobic spore-producing bacteria, which are capable of withstanding high temperatures. Care must be used not to heat such foods to too high a temperature, or the flavor and appearance will be materially impaired. If the temperature is not high enough, however, the spores will not be killed and butyric acid bacteria and certain gas formers will begin to develop. The entire season's output of canneries has been destroyed in this way. This difficulty may be obviated in several ways.

Temperatures considerably higher than those of boiling water may be used. The cans are filled with the vegetables, sealed, and placed in a steam cooker much resembling in action the autoclave used in the laboratory. Steam is admitted under pressure and the desired temperature can be reached by controlling the steam pressure. Experimentation is sometimes necessary to determine the temperature in particular instances which will certainly destroy all of the bacteria present, and at the same time not injure the material being canned.

Intermittent sterilization may be resorted to. This is the most common method used in the household in canning certain vegetables. The cans containing the material to be preserved are placed in water, the water brought to a boil and kept at a boiling temperature for a period of an hour or more. They are then allowed to cool, and the process repeated on three or more successive days. This is the principle of intermittent sterilization such as is used in the laboratory for sugar media easily destroyed by heat. The spores present begin to germinate in the first twenty-four hours. The second heating will kill all the vegetative forms which have developed. Repeating the heating in this manner several times will certainly destroy all the bacteria which may be present.

Some canners have made a practice of adding small quantities of chemicals as preservatives. This enables them to sterilize at a lower temperature and insure them from loss from decomposition. In canning factories, temperatures from 110° to 120° C. for twenty to thirty minutes are used for sterilization in small packages and longer periods for larger packages. The heat used in the preservation of food by sterilization produces few changes other than those which would be accomplished by ordinary cooking. Proteins are generally coagulated and sugar is usually inverted to some extent, i. e., changed to simpler sugars.

## MICRO-ORGANISMS IN FOODS PRESERVED BY HEAT

Micro-organisms may gain entrance to foods by improper sealing or they may persist through a process of attempted sterilization.

Certain types of food materials, particularly the fruits, are most apt to be attacked by molds, such as Penicillium and Aspergillus. These molds do not develop unless there is oxygen present. They fail to develop in hermetically sealed jars. They bring about changes which render the material undesirable as food, although there is no evidence that they produce poisonous substances in appreciable quantities. Usually the mold is confined to the surface, but the decomposition products of its growth frequently penetrate the flavor of the whole mass.

Vegetables and meats are commonly destroyed by bacteria. The most abundant types are those which have withstood heating be-

cause of the resistant character of the spores formed. The organisms belonging to the butyric acid group of bacteria are relatively abundant in the soil and are present on the surfaces of most vegetables. They bring about decomposition with the evolution of considerable amounts of gas. This gas may accumulate in quantities sufficient to bulge and even to break the tin in which it is sealed. The development of such organisms renders the food wholly unfit for use. Some bacteria have been described which bring about decomposition in vegetables and meats without the evolution of gas. They give evidence of their presence by the development of peculiar odors and flavors. In many cases these gain entrance to the food after it has been sealed, and are due to defective sealing.

## STEPS IN PREPARATION

1. Preparation and cleaning of containers.

2. Preparation of products to be canned, washing, paring, cutting, etc.

3. Clean hands, clean utensils, clean, sound, fresh products and pure, clean, soft water.

4. If possible, the fruits and vegetables should be picked the day of canning.

5. The containers washed should be placed in a vessel of cold water over a fire to heat. They will then be hot and ready for use when the products have been prepared for packing.

I. (a) Scalding or blanching is done by placing the products to be canned in cheese cloth bag, or dipping basket into boiling water, and allowed to remain there from 1 to 15 minutes, depending on the kind of product.

(b) In the case of green vegetables, however, the scalding is accomplished most satisfactorily in steam, as volatile oils and other substances remain in the food under this treatment.

II. As soon as the product is removed from the boiling water or steam, it should be dipped into cold, clean water, and immediately removed and drained for a few moments. The temperature of the water used for cold dipping should be as low as possible.

III. Packing: The product should be packed carefully into hot jars as soon as removed. In this case fruits; boiling hot syrup or hot water is then added. In the case of vegetables, hot water is usually used and salt for seasoning. The scalded rubbers and tops of jars are put into place, the tops of cans sealed and the containers placed in a hot water bath preserve cooker or other similar device for processing.

IV. Processing is the final application of heat to sterilize the product and is continued for a period determined by the character of the product and the kind of apparatus used. The containers should be placed in the processing vessel as soon as they are filled.

V. Sealing: Immediately after the termination of the processing period, while the products are still hot, glass and similar containers must be sealed.
Jars should then be placed in a tray upside down to cool and closely examined for leaks. If leakage occurs the covers should be tightened until they are completely closed.

## A FEW SUGGESTIONS

Tin cans may be cooled by plunging them in cold water. Store them in a cool, dry place not exposed to freezing temperature.

Most products packed in glass jars will blanch or darken if exposed to light; it is well, therefore, to wrap the jars in paper. From time to time, especially during very hot weather, both glass jars and tin cans should be examined to make certain that there are no leaks, swelling or other signs of fermentation.

## TIME TABLE

| PRODUCTS BY GROUPS. | Scald or Blanch. | Hot water bath outfits at 212°. | Steam pressure 5 to 10 lbs. |
|---|---|---|---|
| | Min. | Min. | Min. |
| Tomatoes | 1½ | 22 | 15 |
| Pumpkin | 3 | 120 | 60 |
| Squash | 3 | 120 | 60 |
| Hominy | 3 | 120 | 60 |
| Corn, sweet | 5 | 180 | 90 |
| Corn, field | 10 | 180 | 60 |
| Mushrooms | 5 | 90 | 50 |
| Sweet peppers | 5 | 90 | 60 |
| **POD VEGETABLES AND OTHER GREEN PRODUCTS.** | | | |
| Beans, wax | 5-10 | 120 | 60 |
| Beans, stringless | 5-10 | 120 | 60 |
| Okra | 5-10 | 120 | 60 |
| Peppers, green or ripe | 5-10 | 120 | 60 |
| Cabbage | 5-10 | 120 | 60 |
| Brussels sprouts | 5-10 | 120 | 60 |
| Cauliflower | 3 | 260 | 60 |
| **ROOT AND TUBER VEGETABLES.** | | | |
| Carrots | 5 | 90 | 60 |
| Beets | 5 | 90 | 60 |
| Turnips | 5 | 90 | 60 |
| Sweet potatoes | 5 | 90 | 60 |
| Other roots and tubers | 5 | 90 | 60 |
| **COMBINATIONS AND SOUP VEGETABLES.** | | | |
| Lima beans | 5-10 | 180 | 60 |
| Peas | 5-10 | 180 | 60 |
| Vegetable combinations | 5-10 | 180 | 60 |

| PRODUCTS BY GROUPS. | Scald or Blanch. | Hot water bath outfits at 212°. | Steam pressure 5 to 10 lbs. |
|---|---|---|---|
| | Min. | Min. | Min. |
| **GREEN DOMESTIC OR WILD.** | | | |
| Swiss Chard | 15 | 120 | 60 |
| Kale | 15 | 120 | 60 |
| Turnip tops (young, tender) | 15 | 120 | 60 |
| Spinach, New Zealand | 15 | 120 | 60 |
| Asparagus | 15 | 120 | 60 |
| Beets, tops | 15 | 120 | 60 |
| Spinach | 15 | 120 | 60 |
| **SOFT FRUITS AND BERRIES.** | | | |
| Apricots | 1-2 | 16 | 10 |
| Blackberries | | 16 | 10 |
| Cherries | | 16 | 10 |
| Currants | | 16 | 10 |
| Gooseberries | 1-2 | 16 | 10 |
| Grapes | | 16 | 10 |
| Huckleberries | | 16 | 10 |
| Peaches | 1-2 | 16 | 10 |
| Plums | | 16 | 10 |
| Raspberries | | 16 | 10 |
| Strawberries | | 16 | 10 |
| Fruits without sugar syrup | | 30 | 12 |

| HARD FRUITS. | | | |
|---|---|---|---|
| Apples | 1½ | 20 | 8 |
| Pears | 1½ | 20 | 8 |
| Quinces | 1½ | 20 | 8 |
| Windfall apples (pie-filling) | | 12 | 8 |
| Quartered apples (salad) | | 12 | 8 |
| Whole apples and pared | | 16 | 8 |
| Apple syrup | | 15 | 8 |
| Fruit juices | | 15 | 8 |
| Preserves after prep. and filling | | 20 | 10 |

Notes: 1. Do not begin to count time when the jars are placed in the canner, but wait until the water begins to "boil hard".

2. Count time only while water is "boiling hard". If it stops for only a few minutes, make up for it with longer boiling.

3. Use only NEW RUBBERS. If they are so poor that they are destroyed in the boiling or if they slip from under the lid or are cut by the lid when it is screwed down, remove the rubber, replace it with a new one which has been placed in BOILING water for 10 minutes. Then place the jar back in the canner and sterilize 30 minutes longer.

4. Fit lids carefully before placing the product in the can.

5. DO NOT be alarmed if the water does not cover the product in the can. It will keep just as well. Some water will escape in the form of steam if the lid is not fairly tight and some will be absorbed by the product, especially if it is corn or mature peas and beans.

## RELISHES

### GREEN TOMATO CATSUP

Boil the tomatoes until soft, then put through a colander. To 1½ gallons of tomatoes, add 1 pound of sugar, 1 pint of vinegar, 1 tablespoonful of whole black pepper, a double handful of salt, a small onion chopped and 1 teaspoonful of ground cloves. Boil all together until the watery particles disappear and it becomes somewhat like marmalade, then bottle and seal.

### UNCOOKED TOMATO RELISH

Cut one-half peck of peeled tomatoes, 1 cup each of celery, onion and green peppers, add 1 cup of salt and chop all together. Drain in a bag over night, and then add half cup of white mustard seed, 2 tablespoonfuls of celery seed and 1 tablespoonful of ground cinnamon. Pack in a jar, add 3 cups of good cider vinegar, cover and set away. It will be ready for use in 5 days and keeps indefinitely in a cool place.

## CORN RELISH

Cut corn from cob of 18 ears, force 1 small cabbage through meat grinder. Separate 1 bunch of celery, remove leaves and chop stalks. Peel 4 onions and cut in thin slices crosswise. Wipe 2 green peppers and chop. Put prepared vegetables in preserving kettle and pour over 1 quart of vinegar. Mix thoroughly 2 cups of sugar, ¼ teaspoonful cayenne, 1 cup of flour, one-half cup of salt, 1 teaspoonful of mustard and one-half teaspoonful of turmeric and add 1 quart of vinegar slowly. Combining mixtures, bring to the boiling point and let boil 40 minutes. Fill glass jars and seal.

## APPLE CHUTNEY

5 lbs. apples when peeled and cored,
1 pt. vinegar,
1 lb. Sultana raisins,
1 lb. onions,
2 ounces of mustard seed,
2 ounces salt,
1 ounce of curry powder,
¼ ounce of cayenne pepper,
¾ lb. yellow sugar.

Stew the apples and onions in the vinegar until well cooked and tender, then chop the Sultana raisins and add them, then all the other ingredients. Mix well and boil for half hour. When cold it is ready for use and makes a pleasant change with cold meats instead of pickle.

## APPLE RELISH

7 lbs. apples,
2 lbs. seeded raisins,
1 pt. vinegar,
2 oranges,
1 tsp. powdered cloves,
2 tsp. powdered cinnamon,
3½ lbs. of sugar.

Chop the raisins and put them into a porcelain-lined kettle, add the apples chopped and unpeeled, the juice and the chopped peel of the oranges, the sugar, vinegar and spices. Boil steadily for half hour. This relish will keep in unsealed cans all winter.

## CUCUMBER CATSUP

Twelve large cucumbers laid in cold water for 1 hour. Pare and grate fine into a deep earthern dish. Grate 2 small onions and add the cucumbers. Season the mixture with salt, pepper and vinegar, making it as thick as marmalade. Mix thoroughly and seal in glass jars. Be sure to use pure cider vinegar and see that the jars are air tight. This is fine with cold meats.

E. C. H.,
Wisconsin.

## PICKLED LIME RELISH

1 doz. thin skinned pickled limes,
1½ cups sugar,
1 cup of vinegar,
½ cup water.

Wash the limes and soak them in cold water for 24 hours. Change the water several times. In the morning put them over the fire in a saucepan of cold water, and boil until a straw can penetrate easily. Let cool, cut in eighths and remove the seeds. Put the sugar, vinegar and water into a saucepan, boil it for fifteen minutes, and pour over the limes. This is very good served with scalloped oysters and cold meats. It may be prepared at any time and kept all the year round.

## MINT CHUTNEY

1 handful mint,
1 cup seeded raisins,
2 tbsp. sugar,
2 tbsp. tomato catsup,
½ tsp. salt.

Chop the mint fine, then mix it with the other ingredients until it becomes juicy. Serve in a little sauce boat.

## CARROTS AND PINEAPPLE

1 cup ground carrots,
1 cup pineapple.

Cook until tender, add 1 cup sugar and 1 lemon quartered and sliced very thin. Boil slowly until thick, do not stir. Pack into hot jars and sterilize.

## GRAPE SAUCE

1 pk. wild grapes,
1 pk. apples,
¾ lb. sugar to 1 lb. of fruit,
1 ounce cinnamon,
2 nutmegs,
1 ounce of ground allspice.

Pick off a peck of wild grapes from the stems and put on to boil. When tender strain through a jelly bag. Cook 1 peck of apples that have been quartered. When done run through the colander. Put the juice of the grapes and the apples in a porcelain kettle and to each pound of this add ¾ of a pound of white sugar, 1 ounce of ground cinnamon, 2 nutmegs grated, and 1 ounce of ground allspice. Cook until thick and put into glasses. This is fine for cold meat.

## CONSERVES

### GRAPE CONSERVE

5 lbs. grapes,
5 lbs. of sugar,
1 lb. of raisins,
1 lb. shelled walnuts,
2 juicy oranges.

Remove the stems and skins from the grapes and boil the pulp until tender, then press it through a sieve. Boil the skin of the oranges until tender, then chop fine. Put the grape skins and the pulp into a saucepan and add the orange juice, the boiled skins, the sugar and add the raisins and the walnuts and boil until quite thick.

### BLUE PLUM CONSERVE

5 lbs. large blue plums,
5 oranges,
1 package raisins,
1 lb. of English walnuts,
3 lbs. sugar.

Stone the plums and cut them into quarters, wash the oranges and take out seeds, then grind them through a food chopper. Chop the raisins, mix all together with the sugar and let stand over night. Cook slowly until the plum skins are soft, then add the nuts chopped and put into jars.

### STRAWBERRY AND CRANBERRY CONSERVE

1 qt. cranberries,
1 pt. of sugar,
½ pt. water.

As a change from the regulation cranberry jelly or sauce, this combination of cranberry with strawberry will be found appetizing. Cover and cook for 10 minutes, then skin and add to the cranberry 1 cup of strawberry jam. Mix well, then pour into molds and let stand until cool and set.

## PICKLED FRUIT

### WATERMELON RIND PICKLE

8 lbs. of watermelon rind cut in little cubes,
4 lbs. sugar,
1 qt. of vinegar,
2 tbsp. ground cinnamon,
1 tbsp. of allspice,
2 tbsp. whole cloves.

Pare the rinds and cut off the pink inside, then weigh 8 pounds and put it into a porcelain-lined preserving pan and cover with boiling water; then set on the back of the stove and simmer until quite tender, having it closely covered all the time. It will re-

quire about 3 hours. When done have ready the syrup made of the vinegar, sugar and spices. Tie the ground spices in a muslin bag and put the whole cloves in loose. These ingredients will make 4 quarts of excellent pickle that is inexpensive and fine to serve with meats.

## PICKLED PEACHES

½ pk. peaches,
½ pt. vinegar,
½ pt. water,
3 pts. sugar,
A few cloves.

Do not pare the peaches, but wipe them carefully with a clean cloth until smooth. Divide them into 3 equal parts. Bring the water, sugar and vinegar to the boiling point, then put in ⅓ of the peaches and boil for 20 minutes; remove them to a platter, then put in another third and in 20 minutes the remaining third, until each part has been cooked for 20 minutes, thus making 1 hour for the syrup. Stick 1 clove into each peach, put the peaches into jars, cover with the boiling syrup and seal at once in glass jars. The peaches should not be too ripe.

## CHERRY PICKLE

7 lbs. of red berries,
3½ lbs. sugar,
2½ ounces stick cinnamon,
1½ ounces of whole cloves,
¾ pt. vinegar.

Wipe the cherries, then pit and drain them. Tie the spices in a cheese cloth bag and heat them with the vinegar. Pour the hot vinegar over the cold cherries and let the mixture stand over night. Keep draining off and reheating each day for 3 or 4 days, then heat all together to the boiling point and seal.

## GINGER PEARS

10 lbs. pears,
7 lbs. sugar,
4 lemons,
6 oranges,
1 box crystallized ginger.

Peel the pears, cut them into small pieces, put them into a preserving pan with the sugar and cook slowly for 1 hour. Add the lemons, oranges and crystallized ginger, cut into small pieces and allow to simmer for 3 hours, divide into glasses and cover.

## MARMALADES

A marmalade quite out of the ordinary is made with the following ingredients:

5 lbs. rhubarb,
3 large lemons,
1½ lbs. sugar,
6 medium sized oranges, (navels are the best),
1½ lbs. almonds.

Wash and trim the rhubarb stalks and cut them into very thin slices. Peel the yellow rind very thinly from the oranges and lemons; remove the thick white pith, slice the pulp and add to rhubarb. Cut the yellow rind of 3 of the oranges and 1 lemon into tiny strips, add to the other ingredients with sugar in measure to total quantity. Tie the remainder of the peel in a bit of cheese cloth and remove it after the marmalade is cooked. Stir the mixture thoroughly and set aside over night. Boil until thick, about ¾ of an hour will suffice, then add the almonds which have been shelled, blanched and sliced, boil for 10 minutes longer, pour into glasses and when cold cover with paraffin.

## AMBER OR GRAPE FRUIT MARMALADE

1 orange,
1 lemon,
1 grape fruit,
Water,
Sugar.

Shave the orange, the lemon and the grape fruit very thin, rejecting nothing but the seeds and cores. Measure the fruit and add to it 3 times the quantity of water. Let it stand in an earthenware dish over night and on the second morning boil for 10 minutes only. Stand another night, and on the second morning add pint for pint of sugar, and boil steadily until it jellies. The product should have a lumpy appearance, quite different from most marmalades, the strips of fruit being well defined in a clear, pale jelly. To bring this about, stir as little as possible during the 2 hours or more of cooking which is required.

## GOOSEBERRIES

Gooseberries and oranges make an excellent marmalade. Stem the gooseberries, wash, drain and place in a jar with an equal measure of white sugar. To 3 pints of berries use 4 oranges and 2 lemons. Peel off the rind very thinly and shred into threads. Cover with cup of water and let stand over night. Add the thinly

sliced pulp of the oranges and the lemons to the berries, with an equal measure of sugar. Let stand until following day. Add altogether and cook until thick, pour into glasses and serve.

Another extremely good marmalade calls for 4 pounds of pears, 4 lemons and a can of grated pineapple. Peel and core the pears; cook in enough water to prevent them from burning. Rub through a colander. Peel the lemons, shred the yellow rind and cut the pulp small; add all with the pineapple to the pears with an equal measure of sugar. Cook for 1 hour. This is improved by adding blanched shredded almonds. Let the mixture cook for 10 minutes longer.

Eleanor M. Lucas.

## RHUBARB AND ORANGE MARMALADE

Equal parts of sugar and rhubarb,
1 orange,
½ lb. raisins to each pound of rhubarb.

Use equal parts of sugar and rhubarb unpeeled, but cut very fine; add 1 whole orange and ½ pound of raisins chopped fine to each pound of rhubarb. Mix thoroughly and allow to stand several hours in a stone or agate kettle. Then cook down until very thick. Pour into glass or paper jelly cups.

## CHERRY BUTTER

3 cups of pulp, 2 cups sugar, boil until thick.

Select fine ripe cherries, testing them by pressure for bad ones as you leave the pits in. Cook the cherries with just a little water to start them. When cooked, run through a sieve, add the sugar and cook until thick.

## APPLE MARMALADE

To make apple marmalade pare, quarter, core and slice apples to make 4 pounds, wash 3 lemons and slice them very fine; add them to the apples with 1 quart of water. Cook until the apples are soft, press through a colander, and measure; add an equal amount of sugar and 1 cup and a half of blanched almonds cut into pieces. Stir and cook until thick like jelly. Pour into glasses and when cold seal.

Apricots, pineapples and lemon make a marmalade which the college girl aptly defined as "delectable conglomerate of good things." Pare apricots, place in a large bowl and add an equal bulk of white sugar. To 5 pounds of apricots allow 1 large can of grated pineapple, 1 dozen apricots blanched and cut into fine strips and 3 lemons. Peel the lemons, cut the thin yellow rind of 2 lemons into very small pieces and slice the pulp thinly. Boil all together until thick, or about ¾ of an hour. Pour into glasses and treat like jelly when cold.

### MOCK ORANGE MARMALADE

2 cups carrots through meat grinder,
½ cup water,
Boil until it jellies.
1 cup sugar,
1 whole lemon through grinder.

Mrs. Winters.

Note: Paraffin is used in dipping candles made by rolling six thicknesses newspaper, inserting a string in the center, cutting and dipping in paraffin. These may be used by the soldiers. Save paraffin from jelly glasses.

### JELLY

The process of jelly making seems simple, and yet it is frequently attended with uncertain results because the underlying principles are not understood. There are several factors.

Fruit juice contains vegetable acids and a substance called pectin, both of which are essential to the jelly making process. The amount of each varies in the different fruits, which accounts for the fact that some fruits make better jelly than others. The ideal fruit for jelly making should be rich in pectin and should be fairly acid; another important consideration is the proportion of sugar to the juice; a given volume of juice contains a certain quantity of pectin in solution and this quantity of pectin must bear a definite relation to the proportion of sugar. Up to this definite amount the texture of the jelly produced more nearly approaches the ideal, but beyond the definite proportion the jelly is increasing syrup, until it finally fails to hold together at all, and a gummy mass is the result. Experience and exercise of judgment are necessary to determine the correct amount of sugar to be

used. If fruits are gathered after a rain, or if much water is added, the amount of pectin will be proportionately less and the proportion of sugar must also be diminished. Experiments seem to indicate that the correct proportion of sugar to juice varies from three-fourths of a volume to one volume of sugar, to one volume of fruit juice.

The time during the process when the sugar should be added to the juice is also important. Experiments seem to indicate that to add it near either the beginning or to the end of the process is likely to result in crystallization of the sugar. If added at the beginning of the process the sugar is changed by the action of the acid into two simple sugars, one of which is apt to crystallize. If added near the end of the process the original sugar may crystallize. If added midway in the process the sugar is only partially changed and is less likely to crystallize.

Experiments show that there is no difference in the texture, taste or appearance of jelly made from cane or beet sugar if these are equally pure. There is a slight difference in the volume of jelly made from a given amount of juice, the amount being slightly less when beet sugar is used. However, the difference is so small as to be almost negligible.

### TO STERILIZE GLASSES

The process is the same as for sterilizing jars.

### TO FILL AND TO SEAL

Fill the glasses, pour a layer of melted paraffin over the top, adjust the covers, label, and set away in a dry place.

### APPLE JELLY

Wipe, quarter and core the apples, cover with cold water. Heat slowly and simmer until the apples are reduced to a pulp. Drain through a double thickness of cheese cloth or jelly bag. Measure and allow ¾ amount of sugar. Boil juice 15 minutes, add the sugar, heated in the warming oven, and continue boiling 10 minutes, skim, fill glasses, seal.

### SMALL FRUIT JELLY

Green or ripe grapes, currants, cranberries, raspberries, blackberries, etc., may be used. Pick, wash and drain fruit, cook until juice is extracted from fruit. Follow directions for Apple Jelly.

### CRAB APPLE AND PINEAPPLE JELLY

1 pk. crab apples, Equal parts of sugar.
2 pineapples,

A delicately flavored jelly is made by adding one or two cut and peeled pineapples to every peck of crab apples, and equal parts of sugar to the cooked and strained juice of the fruit. Make the same as other jelly.

## NOTES

### DO YOU KNOW OATMEAL?

Do you know that oatmeal makes delicious puddings and other good things?

Of course you know it is a good breakfast food, but it is even better fixed up for dinner or supper. It makes

Excellent puddings,
Wholesome bread and cookies,
An appetizing soup for a cold day,
A baked dish for dinner in place of meat.

1. Food is Ammunition.
2. Every bit of food saved is a shot across No-Man's Land at the Huns.
3. Soldiers strenuously engaged must have sustaining food.
4. There is world shortage of 115,000 animals of the meat productive type (1918). The shortage in this country of 17,000,000 heads in comparison of 17 years ago.
5. In the Italian drive the Italians had to eat fish because of shortage of meat. Dean Mumford.
6. Corn saved our pioneers. Do you know corn meal? Its use means service to your country, nourishing food for you.
7. Use common sense in making War Food and at this crisis it is the duty for each housewife to make her kitchen a laboratory for experiments in conservation of food subs.
8. The men of England, Scotland, Ireland, France, Italy and Belgium—our allies—are fighting; they are not on the farms. The production of food by these countries has therefore been greatly reduced. Even before the war it was much less than the amount consumed. The difference came more largely from other countries than from America. Now this difference is greater than ever, at the same time supplies can no longer come from most of the other countries. They must now come from America. Therefore our allies depend on us

for food as they have never depended before, and they ask us for it with a right which they have never had before. For today they are doing the fighting and suffering and dying in our war. We must send them the food they have to have. We will send it. But we can only do it by a wise and loyal economy of food on the part of every one of us. We must stimulate our food production, organize our food-handling, eliminate all the waste possible, substitute as largely as possible other foods for wheat, beef, pork, dairy products and sugar, and reduce consumption where it is excessive.

9. Let us at this time utterly repeat the old saying that the waste in the kitchen of a prosperous American household would feed a French family.
10. Wastefulness: The elimination of waste will save literally billions of dollars for the American people, and at the same time not disrupt in any degree the industrial progress of the nation.

## TO SAVE GAS OR FUEL

Save Gas—Never leave burner lighted while preparing material —better to use an extra match.

When oven is used plan to bake at same time a roast, apples, potatoes and a pudding or cake.

The boiling point is 212° F. No amount of heat will make it higher. Notice this and turn flame accordingly.

There are three-cornered sauce pans—3 vegetables or sauces may be cooked at one time.

# Rules for Red Cross Knitting

This circular is prepared primarily for the use of hand knitters. Knitting machines may be used if desired, provided the articles can be as well made and made of the same yarn.

The color of the yarn has been carefully considered with the authorities of the War Department, and with the American Red Cross Commissioner for Europe, in Paris. It has been learned from both of these sources that articles made in either gray or khaki yarn will be acceptable. Owing to the difficulty in securing khaki-colored yarn in large quantities, the American Red Cross Supply Bureau will carry the gray yarn (oxford mixture, 4-ply 10's construction).

Yarn and knitting needles may be procured either from Red Cross Chapters or from stores, provided the yarn is of the same grade and needles of the same size as those described here.

The needles referred to in these directions are standardized Red Cross needles which can be purchased from Red Cross Chapters. Their diameter is given opposite their respective number.

Red Cross Needles No. 1—125/1000 inches.
Red Cross Needles No. 2—175/1000 inches.
Red Cross Needles No. 3—200/1000 inches.

Stitches should not be cast on too tightly. Knitting should be done evenly and firmly, and all holes should be avoided.

Joining should be done by splicing or by leaving two or three inches at each end of the yarn to be darned in carefully.

All knots, ridges or lumps should be most carefully avoided, especially in socks, as they are apt to blister the feet.

## SLEEVELESS SWEATERS

Two and one-half hanks yarn (⅝ lb.). 1 pair Red Cross Needles No. 3.

Cast on 80 stitches. Knit 2, purl 2 stitches for 4 inches. Knit plain until sweater measures 24 inches. Knit 28 stitches, bind off 24 stitches for neck loose. Knit 28 stitches, knit 7 ridges on each shoulder, cast on 24 stitches. Knit plain 21 inches. Purl 2, knit 2, stitches, for 4 inches. Sew up sides, leaving 9 inches for armhole, 2 rows of single crochet around the neck, and 1 row single crochet around the armhole.

## KNITTED HELMET

One hank yarn (¼ lb.) 4 Red Cross Needles No. 2.

Cast on 56 stitches loosely. Knit plain for 8 inches for front piece, and leave on extra needle. Knit another piece to correspond for back. These pieces must be at least 9 inches wide. Slip the stitches of both on to 3 needles, arranging for last 2 stitches of back piece to be on beginning of 1st needle, with 38 stitches of front piece added (making 40 on 1st needle). Divide rest of stitches on other 2 needles, 36-36. Beginning with 1st needle, knit 2, purl 2, for 18 stitches. Bind off 22 stitches for face opening. Try to keep same arrangement of stitches on needles for further directions.) Knit 2, purl 2 forward and back on remaining 90 stitches for 1½ inches, always slipping first stitch. Cast on 22 stitches loosely to complete face opening, knit 2, purl 2, for 2½ inches (adjust stitches by slipping 2 from end of 3rd needle to 1st needle, making 42 on 1st needle). Knit 1 round plain, knit 2 stitches together, knit 11, knit 2 stitches together, knit 1. Repeat to end of round. Knit 4 rows plain. Then knit 2 stitches together, knit 9, knit 2 together, knit 1. Repeat to end of round. Knit 4 rows plain. Continue in this way, narrowing on every fifth round and reducing number of stitches between narrowed stitches by 2 (as 7, 5, 3, etc.) until you have 28 stitches left on needles. Divide on 2 needles, having 14 on 1st needle and 14 on the other and finish same as toe of sock.

## WRISTLETS NO. 1

One-half hank yarn (⅛ lb.). 1 pair Red Cross Needles No. 2.

Cast on 48 stitches, knit 2, purl 2, for 12 inches, and sew up, leaving 2 inches open space for thumb 2 inches from the edge.

## WRISTLETS NO. 2

One-half hank yarn (⅛ lb.). 4 Red Cross needles No. 1.

Cast on 52 stitches on 3 needles, 16-16-20. Knit 2, purl 2 for 8 inches. To make opening for thumb, knit 2, purl 2, to end of 3rd needle, turn; knit and purl back to end of 1st needle, always slipping first stitch; turn, continue knitting back and forth for 2 inches. From this point continue as at first for 3 inches for the hand. Bind off loosely and button-hole thumb opening.

### MUFFLER

Two hanks of yarn (½lb.). 1 pair Red Cross Needles No. 3. Cast on 50 stitches, or 11 inches. Plain knitting for 68 inches.

### WASH-CLOTH

White knitting cotton (medium weight), 1 pair Red Cross Needles No. 1.

Cast on 70 stitches, knit back and forth plain until cloth is about 10 inches square, and bind off. Sew a loop of tape to one corner.

### HOT WATER BOTTLE COVER

White knitting cotton (medium weight), 1 pair Red Cross Needles No. 1.

Cast on 56 stitches, knit 2, purl 2, and repeat until the work is 4 inches deep. Then knit back and forth plain for 9½ inches more or until entire work measures 13½ inches. Next decrease 2 stitches at beginning and 2 stitches at end of each needle until there are sixteen stitches left and bind off. Make another piece in same manner and sew together. Attach a 20-inch piece of tape to seam at one side of ribbing to tie around neck of bottle.

### SOCKS

One hank knitting yarn. No. 12 Steel Needles—four, or No. 1 Red Cross Amber Needles—four.

#### LEG

Cast on loosely 60 stitches (20 on each 3 needles).

Knit 2, purl 2, making a ribbed calf for 4 inches.

Knit plain for 6½ inches.

#### HEEL

Take 30 (or half of leg) stitches on one needle, knit across and purl back, always slipping the first stitch for 24 rows, or until there are 12 slipped stitches on edge of heel piece.

To turn heel, hold right side towards you and 1-inch row, knit 17 stitches (or two more than half of total number), slip 1, knit 1, bind off the one slipped and knit 1, turn.

Second row, slip 1, purl 5, purl 2 together, purl 1 and turn.

Third row, slip 1, knit 6, slip 1, knit 1, bind off the one slipped and knit 1, turn.

Fourth row, purl across until you come to stitch before space, purl stitches either side of space together and purl 1, turn.

Fifth row, knit until you come to stitch before space, slip the stitch, knit 1, bind the one slipped and knit 1.

Repeat these two rows, always slipping the first stitch until all heel stitches have been knitted on 1 needle. There should be 18 stitches.

### GUSSETS

First needle. Begin with right side towards you. Knit across heel. Knit up the gusset or slipped stitches on side of heel piece and knit 2 stitches from the front on this needle.

Second needle. Knit the stitches from the two front needles on one needle leaving the 2 last stitches to go on third needle.

Third needle. Take the 2 stitches left from front or second needle—pick up gusset stitches on second side of heel and take nine, or half, the heel stitches on this needle, making the center of the heel the beginning of the row.

Knit first round plain.

Second round, first needle, knit to within 4 of end of needle.

Knit 2 together, knit 2.

Second needle, knit plain.

Third needle, knit 2, slip 1, bind it over the next stitch knitted, and knit plain.

Repeat these two rounds until the gussets are narrowed down to 16 stitches on both side needles.

### FOOT

Knit plain until within 2 inches of desired length (10½ and 11 inches are usual sizes).

### TOE

Knit 5 stitches plain, knit 2 together and repeat to end of row.

Knit 5 rows plain.

Knit 4 stitches plain, knit 2 together and repeat.

Knit 4 rows plain.

Knit 3 stitches plain, knit 2 together and repeat.

Knit 3 rows plain.

Knit 2 stitches plain, knit 2 together and repeat.

Knit 2 rows plain.

Knit 1 stitch plain, knit 2 together and repeat.

Knit 1 row plain.

Knit 2 together—all the way around.

Break off wool and draw through stitches and fasten smoothly on wrong side.

## SHIPPING DIRECTIONS

Completed articles should be sent, if possible, to the nearest Red Cross Chapter. When this cannot be done, they should be sent directly to the Red Cross Division Supply Depot in the nearest of the following cities:

| | | |
|---|---|---|
| Boston | Atlanta | Minneapolis |
| New York | New Orleans | Denver |
| Philadelphia | St. Louis | San Francisco |
| Washington | Cleveland | Seattle |
| | Chicago | |

## WHEN DAY IS DONE

I have eaten a bale
Of spinach and kale,
  And I've never raised a row.
I have swallowed a can
Of moistened bran,
  And feel like a brindle cow.
I am taking a snack
From the old haystack,
  In the evening shadows gray,
And I'm glad, you bet,
At last to get
  To the end of a meatless day.

—Washington Star.

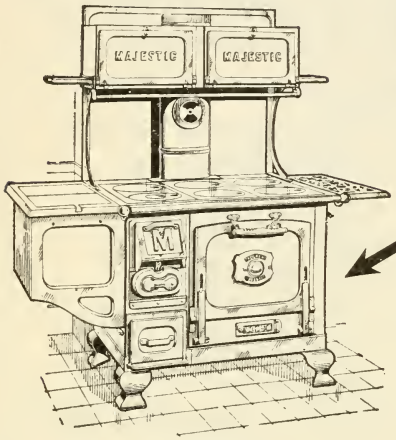
# Index


Measurements and Equivalents ..... 11
Abbreviations ..... 12
A Lesson in Buying ..... 12
Table Weights and Measures ..... 13
Meal Plans ..... 14
Calendar of Patriotic Service ..... 15
Study of the Five Food Principles ..... 15
Composition of Cereals ..... 16
Wheat Substitutes ..... 17
Yeast Bread ..... 17-23
Liquid Yeast ..... 23
Bread Tests ..... 23
How to Conserve Wheat ..... 24
Comparison of Batters and Dough ..... 25
Process of Leavening ..... 25
Quick Breads ..... 26-31
Griddle Cakes ..... 31-32
Cereals ..... 32-36
General Directions for Cooking Cereals ..... 33
Meat Savers ..... 36-73
Why You Should Use Meat Substitutes ..... 38
Effect of Heat on Protein ..... 38
Legumes as Meat Substitutes ..... 39-44
Sauces for Legume Loaves ..... 44
Nuts as Meat Substitutes ..... 46-48
Cheese as Meat Substitutes ..... 49-54
Fish as a Meat Substitute ..... 55-64
Sauces for Fish ..... 64
Poultry as Meat Substitute ..... 66
Meat Sparers ..... 68-73
Soups That Save ..... 74-79
Methods of Cooking Vegetables ..... 80-85
Milk ..... 86
Food for Your Children ..... 87-90
White Sauces ..... 91
Eggs ..... 94-96
Custards ..... 97
Comparison Fats and Oils ..... 98
Fats and Butter Substitutes ..... 98-108

# Index

How to Save Fats ..... 99
War Butter ..... 105
Conservation Pie Crust ..... 105
Preparation and Properties of Soap ..... 107-108
Salads ..... 108-116
Salad Dressings ..... 108
Sugar Substitutes ..... 117-138
Suggestive Methods for Conservation of Sugar ..... 120
Sugarless Candies ..... 120-123
Cakes and Cookies ..... 124-131
Pudding ..... 131-135
Pudding Sauces ..... 135
Ice Creams and Fancy Desserts ..... 136-138
Menu for Conservation Luncheon ..... 139
Sterilization and Home Canning ..... 141-146
Time Table for Canning Vegetables and Fruits ..... 145
Relishes ..... 146
Conserves ..... 149
Pickled Fruit ..... 149
Marmalades ..... 151
Jelly ..... 153
Notes and Slogans ..... 154
Rules to Save Gas or Fuel ..... 156
Rules for Red Cross Knitting ..... 157
When Day is Done ..... 162
While Putting on a Bold Front, America is Showing Signs of Weakness Behind the Lines ..... 56
Her 1918 Cook Book ..... 6

# Look to Your Range Oven to help CONSERVE FOOD :: ::




Ever think of the food waste that evaporates from a loosely constructed oven? There is no conservation in putting two pounds of dough in your oven and taking out a 1½ pound loaf of bread — half a pound wasted through the cracks.

The oven of a cast iron range or cook stove is not tight—at least not after expansion and contraction caused the stove putty to fall out exposing large cracks. Some of your food is bound to get out of that kind of oven. You don't realize it, but in a year's time it means a tremendous waste, to say nothing of the fuel wasted to heat the oven and the food wasted through improper baking—burnt on one side and not done on the other.

Not so with the

## GREAT MAJESTIC RANGE

it's made of nonbreakable malleable iron and rust-resisting charcoal iron—all joints are rivet tight—not an ounce of stove putty used. It stays tight and bakes right always. It positively reduces food and fuel waste to the minimum.

**Help Win the War with a MAJESTIC in Your Kitchen**

***It's the Economical Way***

**MAJESTIC MFG. CO.**
**2002 Morgan Street**
**St. Louis, Mo.**

*The Range with a Reputation*

# COTTAGE CHEESE

## The *cheapest substitute for meats*

U. S. Department of Agriculture Bulletin A. I. 24 of July 11th, 1917, says as follows:

| 1 lb. Cottage Cheese supplies as much protein (body builder) as | | | 1 lb. Cottage Cheese supplies as much energy as | | |
|---|---|---|---|---|---|
| 1.27 pounds | | sirloin steak | 8⅓ ounces | | sirloin steak |
| 1.09 | " | round steak | 11¼ | " | round steak |
| 1.37 | " | chuck rib beef | 11¼ | " | chuck rib beef |
| 1.52 | " | fowl | 10¾ | " | fowl |
| 1.46 | " | fresh ham | 5½ | " | fresh ham |
| 1.44 | " | smoked ham | 5 | " | smoked ham |
| 1.58 | " | loin pork chop | 6 | " | loin pork chop |
| 1.31 | " | hind leg of lamb | 7⅓ | " | hind leg of lamb |
| 1.37 | " | breast of veal | 12¾ | " | breast of veal |

BUY YOUR REQUIREMENTS OF

## ST. LOUIS DAIRY COMPANY

Bomont 995 Central 7490

When you want something better and cheaper than Butter

BUY

## TEMTOR BRAND

APPLE BUTTER
PRESERVES and JELLIES

BEST-CLYMER MANUFACTURING CO.
St. Louis, Mo.

# KROGER QUALITY

Has won thousands of loyal customers, who at first doubted the Quality on account of the Low Price, but after one trial were fully convinced as to the superiority of Kroger Quality, and have remained our most enthusiastic customers.

**The Kroger Grocery & Baking Co.**

*A Quality Store In Your Neighborhood*

# Mamma's Pancake Flour

***A Real Conservation Product***

A blend of

Rice, Rye, Barley, Corn and Wheat Flour

*Easy to make and a real Economy*

*Manufactured by*

**F. B. CHAMBERLAIN COMPANY**

ST. LOUIS, U. S. A.

# THE MISSOURI WOMAN

Official organ of the

**Missouri Woman's Committee, Council of National Defense**

published monthly in the interests of patriotic women who think and do.

**$1.00 a year**
**in advance**

Send subscriptions direct to

***State Headquarters of the***

**Woman's Committee,**
**Council of National Defense**
**2060 Railway Exchange, St. Louis**

SINCE 1888—HEADQUARTERS FOR

# PEANUT

**BUTTER**
**HALVES**
**GRANULATED**
**MEAL AND**
**FLOUR**

We distribute through the wholesale trade from whom your dealer can supply you

**BAYLE FOOD PRODUCTS CO., St. Louis**


Garrison-Wagner Printing Co., St. Louis

# In The Hour of Economy

USE

YALE BRAND PRODUCTS

THE

BRAND

OF

QUALITY

COFFEES

TEAS

SPICES

EXTRACTS

MUSTARDS

"THE SPICE OF THE HOUR AND FLAVORING POWER."

USE THIS BRAND wherever Spices are indicated in Recipes to impart the true flavor and assure the quality that will give best satisfaction.

Flavor, Strength and Purity determine the value of Spices, and it is by testing in actual usage that the real quality can be distinguished.

STEINWENDER-STOFFREGEN
COFFEE COMPANY.,
IMPORTERS & MANUFACTURERS
ST. LOUIS, U. S. A.

RICHARD S. WORMSER
22 West 48th Street
New York